DURBAN UNIVERSITY OF TECHNOLOGY

AN EVALUATION OF THE MANAGEMENT OF RURAL WARD-BASED PRIMARY HEALTH CARE: A CASE STUDY OF UTHUKELA DISTRICT MUNICIPALITY IN KWAZULU-NATAL

By

Margaret Thandeka Zulu

Student Number: 21143620

A thesis submitted in fulfilment of the requirements for the degree of

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In the

School of Public Management and Economics

Faculty of Management Sciences

Supervisor: Dr I G Govender

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ABSTRACT

The shortage of staff in hospitals resulted in the overcrowding of outpatients departments (OPDs) and long waiting times. The problems of the current health care system include the lack of access to transportation and high transport fees which cause delays in health seeking behaviours by patients or them resorting to traditional medicine in their neighbourhood. To alleviate the above issues, the new Primary Health Care (PHC) approach provides health care at a ward based and household level through community care giver (CCGs) and outreach teams.

The study evaluated the management of rural ward-based primary health care in the UThukela District Municipality (UDM). The study intended to evaluate current performance systems in order to provide effective and efficient PHC; identify the role of the operational manager (OM) in the provision of PHC; and identify the factors affecting the performance of CCGs. A mixed methods approach was used amongst 368 CCGs and 17 OMs. Data was collected from CCGs using questionnaires while an interview schedule was used to collect data from OMs.

The study showed that the performance management systems currently being used were not providing the desired performance management outputs. There were no performance bonuses to recognise best performing staff and therefore no increase in performance. The study also showed a significant relationship between the management of referrals and participation in the activities of PHC outreach teams. The clinic was not regularly giving feedback to the respondents and also not consistently conducting performance reviews.

The findings indicated that OMs were playing various roles in the provision of PHC, namely policy and strategy implementation; leadership and governance; clinical care; allocation of resources; clinic budget management; supply chain management; and writing clinic reports. The extent of the allocation of resources to the wards varied from 43% for medicines and equipment to 31% for financial resources and only 18% for human resources. More than 95% of the CCGs viewed the availability of transport, resources, training and the provision of a stipend to be strong enabling factors for them to perform their work. Respondents indicated that monitoring and

evaluation was done through reporting, performance reviews, feedback and supervision.

The findings indicated that ward-based outreach teams are crucial in the delivery of PHC services in rural municipal wards within the Operation Sukuma Sakhe programme. Lack of management and supervisory support contribute to high rates of dissatisfaction amongst CCGs, as well as poor quality of work for community caregivers. There is a need for the Department of Health (DoH) to invest in the ward-based outreach teams (WBOTs) and allocate CCG budgets within the ward-based outreach teams.

The study recommended that a review of monitoring and evaluation policy is required to clearly state the tools, activities and benefits of the implementation of the M & E performance management systems. The use of point-of-care technology by the WBOTs should be strengthened especially in deep rural wards. Therefore, biomedical technology will enhance point-of-care diagnosis, for instance, rapid home test kits for HIV diagnosis and pregnancy tests. The KwaZulu-Natal DoH should fast-track development of the sub-districts in order strengthen service delivery at a local level with top management ensuring development of OMs and PHC Supervisors in order to increase the level of competence and thereby improve service delivery at the PHC facilities.

Another recommendation was to strengthen implementation of Operation Sukuma Sakhe (OSS) where the war room and the ward committee increase commitment to designing community-specific interventions with the engagement of community structures and government departments and local municipality through social planning, social action and locality development.

Therefore, the results of the study should also influence the formulation of policies, programmes, methods and interventions which will enable UThukela District Municipality to improve health outcomes.

Keywords: community caregiver, ward-based PHC services, health system strengthening.

SUPERVISOR'S PERMISSION TO SUBMIT FOR EXAMINATION

Date: 01 November 2015

Student Name: Margaret Thandeka Zulu

Student no.: 21143620

Thesis Title**:** AN EVALUATION OF THE MANAGEMENT OF RURAL WARD-BASED PRIMARY HEALTH CARE: A CASE STUDY OF UTHUKELA DISTRICT MUNICIPALITY IN KWAZULU-NATAL.

As the candidate's supervisor, I agree to the submission of this thesis for examination. To the best of my knowledge, the thesis is primarily the student's work and the student has acknowledged all reference sources.

The above student has also satisfied the requirements of English language competency.

Supervisor: Dr Ivan Gunass Govender

DECLARATION

I, Margaret Thandeka Zulu, hereby declare that:

(i) The research reported in this thesis, except where otherwise indicated, is my original research work.

(ii) This thesis is submitted in fulfilment of the requirements for the degree of Doctor of Technology.

(iii) This thesis has not been submitted for any degree or examination at any other university.

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Margaret Thandeka Zulu
Student Number: 21143620
Date: 01 November 2015

DEDICATION

This study is dedicated to my only child and son, Celumusa “Gebo”, who is always my pillar of strength; who has been very supportive in all my endeavours; my mother; my siblings, Jabu, Mbuyiseni, Thokozani and Sibusiso for their support; my helper, Thandeka who has not been complaining when I did not assist with household chores. I am very grateful to you all.

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To all the respondents, for their time and their interest, in the study.

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Acronyms

ACAPS	Assessment of Capacities Projects
ANC	Antenatal Care
ANOVA	Analysis of Variance
ANM	Auxiliary Nurse Midwife
APP	Annual Performance Plan
ARVs	Antiretrovirals
ASHA	Accredited Social Health Activists
ATM	Access to medicines
HCBC	Home Community-Based Care
CARMMA	Campaign on Acceleration of Reduction of Maternal Mortality in Africa
CBO	Community Based Organisation
CBW	Community Based Workers
CCG	Community Care Givers
CDC	Community Development Committees
CEO	Chief Executive Officer
CFO	Chief Finance Officer
CHC	Community Health Centre
CHW	Community Health Worker
CHP	Community Health Programme
COPC	Community-oriented Primary Care
DAC	District AIDS Councils
DCST	District Clinical Specialist Team
DHA	Department of Home Affairs
DHER	District Health Expenditure Review
DHP	District Health Plans
DHS	District Health System
DMT	District Management Team
DoE	Department of Education
DoH	Department of Health
DAERD	Department of Agriculture, Environmental Affairs and Rural Development

DoH	Department of Health
DOT	Directly Observed Treatment
DSD	Department of Social Development
DHC	District Health Council
DHIS	District Health Information System
DTT	District Task Team
ECD	Early Childhood Development
EMS	Emergency Services
EPMDS	Employee Performance Management Development System
EPWP	Extended Public Works Programme
FHS	Family Health Strategy
FMP	Family Health Programme
FMOH	Federal Ministry of Health
GP	General Practitioner
HAART	Highly Active Antiretroviral Therapy
HAST	HIV, AIDS, STI and TB
HBC	Home Based Care
HIV	Human Immunodeficiency Virus
HST	Health Systems Trust
IDP	Integrated Development Plan
IMA	Islamic Medical Association
ISHT	Integrated School Health Teams
KZN	KwaZulu-Natal
LAC	Local AIDS Council
LTT	Local Task Team
MAF	Millennium Acceleration Framework
MCWH	Maternal, Child and Women's Health
MDG	Millennium Development Goals
MEC	Member of the Executive Council
M&E	Monitoring and Evaluation
MMC	Male Medical Circumcision
MOH	Ministry of Health
PMTCT	Prevention of Mother To Child Transmission

MTSF	Medium Term Strategic Framework
MTEF	Medium Term Expenditure Framework
MUAC	Mid upper Arm Circumference
NCS	National Core Standards
NDP	National Development Plan
NHI	National Health Insurance
NGO	Non-Governmental Organisation
NSDA	Negotiated Service Delivery Agreement
OHSC	Office of Health Standards Compliance
OM	Operational Manager
OSS	Operation Sukuma Sakhe
PIH	Partners in Health
PHC	Primary Health Care
PTT	Provincial Task Team
SAM	Severe Acute Malnutrition
SMS	Senior Management Service
SPSS	Statistical Package for the Social Sciences
STP	Service Transformation Plans
SUS	System Usability Scale
TB	Tuberculosis
TBA	Traditional Birth Attendants
RSA	Republic of South Africa
UCS	Universal Coverage Scheme
UDM	UThukela District Municipality
UN	United Nations
USA	United State of America
VDC	Village Development Committees
VHN	Village Health Nurse
VHW	Village Health Workers

WBOT	Ward- Based outreach Team
WBPHCOT	Ward-Based Primary Health Care Outreach Teams
WHO	World Health Organisation
WHS	Ward Health System
WTT	Ward Task Team

List of appendices

LANGUAGE CERTIFICATE

696 Clare Road

Clare Estate

Durban

4091

11 January 2016

To Whom it may concern

Editing of doctorate: Ms MT Zulu (Student number: 2114360)

This letter serves as confirmation that Ms Zulu's dissertation entitled AN EVALUATION OF THE MANAGEMENT OF RURAL WARD-BASED PRIMARY HEALTH CARE: A CASE STUDY OF UTHUKELA DISTRICT MUNICIPALITY IN KWAZULU-NATAL was language edited.

Should you have any queries in this regard, please contact me on the details below.

Regards

MP Mathews

B Soc Sci (Honours) UND

083 676 4778

mercillenem@gmail.com

CHAPTER ONE: INTRODUCTION

1.1 Introduction

Chapter one provides an overview of the study. The chapter introduces the research topic, describes the background, as well as stating the research problem, (the context and the significance of the study). The Uthukela District Municipality is described in order to give an overview of the area in which the study was conducted. The problem under study, the aim, the research objectives and questions are also discussed. The chapter briefly describes the research methodology and research design, sample, sample selection and size, pilot test and the research instrument. Ethical considerations and definitions of concepts are briefly explained. Lastly, the organisation of the study is presented in this chapter.

1.2 Background to Health Care

The World Health Organization (WHO) policy of Primary Health Care (PHC) which was supported by member states at a meeting in Alma Ata in 1978 shifted the focus from the provision of health services in relation to health, social and economic development to health outcomes. At most, countries relied on PHC delivered mainly by nurses along with an overall healthcare system geared towards hospital care.

South Africa implemented ward-based outreach teams (WBOTs) in which the family physician formed part of the district clinical specialist team (DCSTs). This increasing community orientation and intersectoral action intended to close the gap between PHC and public health where PHC contributed to increased social cohesion and to people's empowerment.

In developing countries like South Africa, there is an increasing tension between vertical disease-orientated programs which focus on HIV/ AIDS, malaria and tuberculosis and the development of PHC. The intention was to strengthen PHC through sound preventive, promotive, curative and rehabilitative care by appropriately utilised, competent and motivated staff. However, critical skills are lost to the private health sector which provides better benefits than the public sector and this adversely affects PHC delivery.

According to census results (2011:11), 95% of people in the Uthukela District Municipality are uninsured for health care because they do not have health coverage like medical aid schemes or they cannot afford health care costs, thus depending solely on the PHC services which are more accessible.

1.3 Location of the study

1.3.1 UThukela District Municipality (UDM)

1.3.1.1 Locality of Uthukela District Municipality

The District Health Barometer (2010: 202) asserts that KwaZulu-Natal is the second most populous province (10.6 million people) in South Africa - accounting for almost 21% of the South African population- and has the highest burden of diseases associated with underdevelopment and poverty. These diseases include HIV and AIDS; Tuberculosis(TB); Maternal and child(MCWH) related illnesses; non-communicable diseases, namely hypertension, diabetes and cancer; and violence and injuries. The latter have been cited as the top four causes of mortality in KwaZulu-Natal; and are also the reason that this province has the highest mortality rate in the country.

UThukela District is one of the 11 health districts in the KZN province located within the region of northern KwaZulu-Natal with a total population of 714 915 and 139 638 households. The UDM has five (5) local municipalities, namely Emnambithi/Ladysmith (236 746) Indaka (101 555), UMtshezi (83 906) Okhahlamba (151 446) and Imbabazane (140 747) with 73 wards, 66 of which are rural wards.

In the three sub districts (Okhahlamba, Indaka and Imbabazane) there is no access by mobile units due to the terrain being very steep with few footpaths; no accessible roads and rivers of various sizes needing to be crossed, making access to health services difficult (Census 2011:51). Figure 1.1 illustrates the health facilities available and where CCGs are linked to serve specific rural wards.

Figure 1.1: Map of UThukela District Municipality

Source: Statistics South Africa (2011:11)

1.3.1.2 Distribution of population

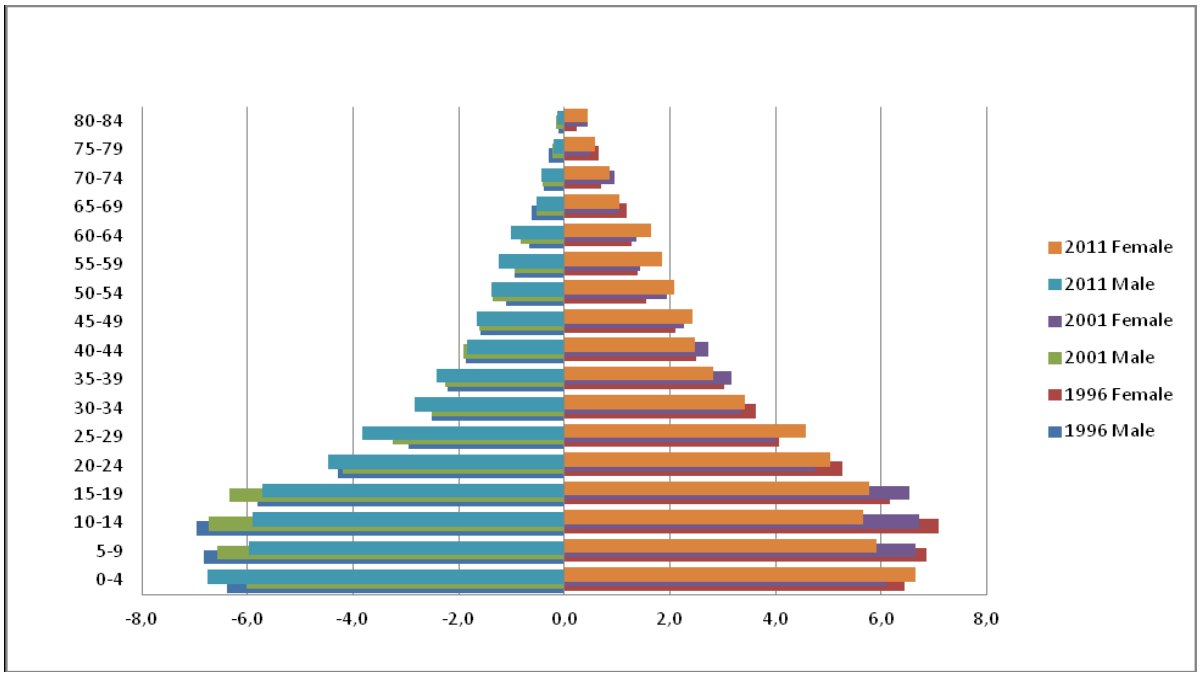
The focus of the public health sector is to render services to people who are dependent on public health services. The pyramid below (Figure 1.2) depicts the distribution of population by age and sex. A comparison of the 1996, 2001 and 2011 census results show that the greater population comprises young people from 0 to 34 years as opposed to older people (60 – 84 years). Therefore health programmes should be designed such that they are also adolescent and youth friendly. Previous district and research reports (Health District Health Barometer 2014: 439) indicated that an increased disease burden affected the youth, namely, HIV and AIDS, TB, sexually transmitted infections, teenage pregnancy and other social ills.

The pyramid below, also indicates that the larger age group is from 0 – 19 years followed by 20 years – 34 years. Therefore more focus should be put on these age

groups and hence the need for priority programmes in rural areas, such as child health, maternal health and HIV/ AIDS; sexually transmitted illnesses; and TB (Health District Health Barometer 2013:472).

It can be noted from the pyramid that there is a decline in the number of elderly people, for instance, between 60 and 84 years. The life expectancy had declined to between 55 and 59 years in 2011. UDM is also affected by the quadruple burden of disease, namely hypertension, diabetes, stroke and heart disease, as well as injuries from road accidents along the N3 resulting in shorter life spans (District Health Plan 2015:8). UDM also has higher levels of poverty and unemployment. It is expected that if the implementation of ward based PHC services in rural wards in UDM is effective, the life expectancy will increase at least from 60 years in 2012 to 63 years in by 2019 (SONA 2015:22).

Figure 1.2: Distribution of Population



Source: Census results (2011: 5)

1.3.1.3 Health Services in UThukela District Municipality

The purpose of the District Health System is to ensure and account for the delivery of integrated, effective and efficient health services at all levels of care based on the PHC approach (Department of Health 2013:13). There is one regional hospital, two district hospitals, one community health centre, 37 fixed clinics and 14 mobile clinics in UDM.

1.4 Statement of the problem

The Rural communities travel or walk long distances to the clinic and sometimes there is no transport or it is expensive (Some clinics close before 4pm and over weekends or public holidays). Approximately 45% of people in rural communities in UDM are unemployed and cannot afford private medical care. Most clinics lack the space to accommodate the growing population and there is a shortage of professional nurses at clinics, which increases patient waiting time for services. These challenges result in a reluctance by the community towards using clinics. They therefore resort to either going to a traditional healer or staying at home.

The Department of Health (2013:14) argues that in terms of the current PHC system in South Africa, little is done to ensure the integration of services focusing on community or household levels and understanding illness experiences. More emphasis has been put on curative services thereby increasing disease burden and hospital costs.

Another challenge is fragmented PHC services that are mainly due to non-uniform institutional frameworks within provinces, districts and local municipalities. One example is the non-alignment of health service delivery with the Integrated Development Plan (IDP) where a new clinic may not be officially opened due to not having electricity and water.

Barriers of culture and beliefs also pose a problem in PHC implementation. For instance, the UThukela District 4th Quarter Report (2011: 8) indicate that pregnant women in rural communities use a herbal medicine called “Isihlambezo” which is a traditional herbal mixture used by pregnant mothers and therefore delays starting on antenatal care before 20 weeks and the fast tracking of HIV-positive pregnant

women to initiate ante-retroviral therapy. Additionally, the current PHC implementation puts less focus on municipal wards and the CCG coverage is inadequate, resulting in PHC services being inherently reactive and weakly integrated.

The increasing number of community complaints and waiting times at PHC clinics poses another challenge. Patients wait for 3 to 6 hours before they are seen by a professional nurse. This is due to staff shortages. The community often cited negative staff attitudes and disrespect; patients not treated with dignity; and abusive language used by staff (UThukela Complaints Register 2011: 2). There is also a problem with referring patients to clinics and hospitals. For example, currently UDM experiences only a 26% response rate in less than 40 minutes and a 51% response rate in 60 minutes by Emergency Medical Services (EMS) due to shortages of skilled staff and vehicles. It therefore becomes critical that preventive and promotive health services are ward-based in order to reduce avoidable emergencies (UThukela District Quarter Report 2011: 20).

There is also a lack of monitoring and evaluation of PHC in UThukela District Municipality. Normally, there should be a PHC coordinator at a district level and PHC supervisors at a hospital or sub-district level. The PHC coordinator should be responsible for in-depth monitoring, evaluation and quarterly reporting while the PHC supervisor does monthly supervision. The provincial target rate for monthly supervision is 80%. The report reflects a significantly lower than target rate for supervision of between 32% and 34% (UThukela District 4th Quarter Report 2011: 8).

The Department of Health and Social Development and Non-Government Organizations (NGOs) have a group of community trained fieldworkers who are responsible for different activities in different communities. These groups have overlapping mandates, different reporting lines and different conditions of contracting or employment. These groups serve the same communities, creating unnecessary duplication and competition amongst these departments which adversely affects the initiatives of PHC to communities. As a result, there was a call

for an integration of services by the previous KZN Premier Dr Zweli Mkhize (Operation Sukuma Sakhe Implementation Model 2011: 14).

1.5 Aim of the study

The study aims to evaluate the management of the rural ward-based PHC in UDM in the KwaZulu-Natal province.

1.6 Objectives of the study

The objectives of the study are to:

- Evaluate current performance systems to provide effective and efficient PHC;
- Identify the role of the operational manager (OM) in the provision of PHC;
- Identify the factors affecting the performance of CCGs; and
- Develop an integrated ward-based PHC model.

1.7 Key questions to be answered

- How effective and efficient are the current PHC performance management systems?
- How do OMs promote PHC at the ward-based level?
- What factors are enablers or constraints to CCG performance?

1.8 Significance of the study

The research should underpin the improved management of accessible, preventive and promotive primary health care services at a ward level. The results of the study should expand the knowledge base of rural ward-based primary health care in UDM. The results of the study will also influence the formulation of policies, programmes, methods and interventions which will enable UDM to improve health outcomes.

At the end of this study a theoretical framework on rural ward-based PHC in districts will be developed. The study results will be shared with other departments within and outside UThukela District Municipality. The study can be replicated in other districts in the country.

1.9 Research Methodology

1.9.1 Research Design

The study adopted a mixed method approach using both qualitative and quantitative research methods. Qualitative and quantitative data was collected from participants using an interview schedule and questionnaires.

Primary data was collected from CCGs using questionnaires and from operational managers using the interview schedule. Closed and open-ended questions were used to elicit more information in order to answer the research questions. Consent to undertake research was obtained from the Head of Department with support from the Chief Executive Officers (CEOs) as responsible managers for the clinics (Appendices C and D respectively).

1.9.2 Target Population

The CCGs are responsible for the execution of the PHC plans, while the OMs played an important role in the planning, implementation and monitoring of CCGs, as well as allocating resources at the tactical level. The primary study population consisted of CCGs working in seventy-three wards of the five selected municipalities in UDM. The secondary population was the Operational Managers working in all thirty-four rural clinics in both fixed and mobile clinics.

1.9.3 Sample selection and size

Selection was made using probability sampling that ensures an equal likelihood of any one entity of the target population being selected (Saunders, Lewis and Thornhill 2009:152). A simple random sampling technique was adopted to select a representative sample of CCGs in rural wards and the operational managers of both the fixed and mobile clinics in UThukela District Municipality. Urban clinics were excluded from the study. The sample for the study was four hundred CCGs (n=400) and twenty OMs (n=20) at rural fixed and mobile clinics.

1.9.4 Pilot test

According to Shuttleworth (2010:1), a pilot study is a research project that is conducted on a limited scale that allows researchers to get a clearer idea of what they want to know

and how they can best find it out without the expense and effort of a full-fledged study. They are used commonly to try out survey questions and to refine research hypotheses. It involves the use of a small number of respondents to test the appropriateness of the questions and their comprehension. The purpose is to ensure that the questions are understood by the respondents and that there are no problems with the wording and the instrument.

The pilot study was conducted in three municipal rural wards of UThukela District Municipality, namely Ward 5 in Indaka Municipality; Ward 2 in Okhahlamba Municipality; and Ward 3 in Imbabazane Municipality. The respondents in the pilot study were not included in the main study. The sample size comprised ten CCGs in rural wards (n = 10) and one OM in the clinic (n = 1).

1.9.5 Research Instrument

1.9.5.1 Questionnaires

Data was collected through self-administered questionnaires where the CCGs answered the same set of questions independently. The self-administered questionnaire comprised of clear and simple questions where respondents were given clear instructions. It took between 15 – 20 minutes to complete the questionnaire. The time prevented exhaustion in respondents so that they could answer questions honestly thereby ensuring reliability.

1.9.5.2 Interviews

Interviews were conducted to collect data from the Operational Managers at both fixed and mobile clinics. An interview schedule was used during the interview (Appendix I). Interviews took approximately 30 to 40 minutes where semi-structured and open-ended questions were asked. Open-ended questions enabled respondents to freely explain their ideas, opinions and beliefs in their own words. Semi-structured questions were used to explore the relevant research questions and objectives.

1.9.6 Data Collection

The questionnaires were posted and emailed to the selected CCGs and OMs respectively. Invitation to participate letters (Appendix E and F respectively) accompanied the questionnaires, with a self-addressed envelope. Prior telephonic and email arrangements were made with the OMs to ensure their availability for the interview. The questionnaires were received via post and a record of all returned questionnaires was kept. The researcher also conducted telephonic and email follow ups to ensure a high response rate.

1.9.7 Data Analysis

Quantitative data analysis focused on descriptive and inferential statistics. Descriptive statistical tools included frequency tables, graphs and pie charts while inferential statistical tests involved chi-square or correlation. The Mann Whitney U and the Wilcoxon W tests were also used to compare the CCG and OM independent groups based on a single variable. For example, the management of referrals and participation in PHC activities, namely profiling, referrals, community dialogues and behavioural change campaigns. (The results are attached as appendices)

The researcher sourced the service of a statistician for the analysis of data. The SPSS version 21 software package was used. Qualitative data analysis looked for themes and content through the process known as coding. Coding is described as the process of examining raw qualitative data in which codes or labels are assigned to words, phrases, sentences and paragraphs.

1.9.8 Validity and Reliability

1.9.8.1 Validity

According to Schreuder and Coetzee (2010:143), validity refers to how appropriate the test is in predicting the predictor construct and to what extent true and meaningful estimates or inferences can be made based on the test results. Validity refers to the extent to which data collection methods accurately measure what they were intended to. Validity also refers to the extent to which the research findings are really about what they were predicted to be about.

The researcher established content validity by consulting with research experts on the representativeness and suitability of questions. Validity was tested during the pilot study. Gaps and unclear instructions or ambiguous questions were identified and rectified before the study commenced.

1.9.8.2 Reliability

Reliability is defined as the degree to which the data collection method will yield consistent findings, similar observations would be made or conclusions reached by other researchers (Saunders et al 2009: 309). It also indicates transparency of the sense made from the raw data. Reliability refers to the consistency and stability of the measurement. A measure should yield the same estimate on repeated use when the measured property has not changed (Coetzee and Schreuder 2010:140). The results should be the same, failing which it would indicate that the instrument used is unreliable and, therefore, inconsistent. Retest reliability is the most common type of reliability as it refers to the reproducibility of values of a variable when the same subjects are measured twice or more. Reliability would be measured using the correlation of coefficients, t tests, means or retest correlation (Pearson correlation) (Saunders et al 2009: 309). The Statistical Analysis System (SAS) was used to calculate the changes in performance between tests, confidence limitations or p values for the changes.

1.10 Ethical Considerations

Ethics are a set of moral principles initially suggested by an individual or group. Ethics offer rules and behavioural expectations about the most correct conduct towards, for example, experimental subjects and respondents, employees, sponsors, other researchers, assistants and students (Resnik 2011:1). The ethical issues will be discussed in detail in chapter four.

1.11 Permission Letters

The researcher requested authority to conduct research in public hospitals in UThukela District Municipality from the Head of Department, attached as Appendix A. Another request letter of support was submitted to the relevant Hospital CEO's of UThukela District Municipality, attached as Appendix B.

1.12 Definition of key terms

Clinic is defined as a facility at and from which a range of PHC services are provided, but that is normally open only 8 hours a day.

Community is a group of organisms that live and interact with one another in a specific environment, in this case in the ward.

Community Health Centre is defined as a facility that, in addition to a range of other PHC services, normally provides 24 hour maternity, accident and emergency services with up to 30 beds where patients can be observed for a maximum of 48 hours.

Community Based Health Services is any activity that takes place within or is targeted at a community and that aims to improve health outcomes.

Community Care Worker refers to any worker, albeit a volunteer worker, who delivers services under the auspices of Home Community-Based Care and support programmes both in support of health and social development programmes. This term encompasses and replaces Community Health Workers and Community Care Givers.

Community Health Worker refers to any lay worker whose primary function at the adoption of this policy framework is to promote basic health or the delivery of basic health services within the home or primary health care facility.

District Health System is defined as a system consisting of various health districts. The boundaries of health districts coincide with the district and metropolitan municipal boundaries.

Evaluation is the process of determining the worth or significance of a development activity, policy or programme in order to determine the relevance of objectives; the efficacy of design and implementation; the efficiency of resource use; and the sustainability of results.

Health Care refers to the prevention, treatment, and management of illness and the preservation of mental and physical well-being through the services offered by the medical and allied health professions.

Health System refers to a health system consisting of all organisations, people and actions whose primary intent is to promote, restore or maintain health and include all efforts to influence social determinants, as well as more direct health-improving interventions. The health system therefore comprises a set of interdependent parts that contribute to the functioning of the whole. For example, infrastructure, funding, caregivers, patients and clients.

Management refers to the coordination of all resources through the process of planning, organising, directing and controlling in order to achieve the organisation's stated goals.

Monitoring refers to a continuing function that uses the systematic collection of data on specified indicators to provide management and the main stakeholders of an ongoing development intervention with indications of the extent of progress and achievement of objectives and progress in the use of allocated funds.

Municipal ward is defined as a subdivision of a local authority area, typically used for electoral purposes.

National Health Insurance is a scheme where people contribute to the health services of those who don't have or cannot afford. It addresses the issue of equity, which is one of the features of PHC, so that the health care resources available are not in the hands of a few. In essence resources, should be accessible and affordable to all.

Operation Mbo is a service delivery approach where government departments, municipalities, development partners and civil societies come together to an area to deliver services to communities that would normally travel long distances to obtain such services.

Primary Health Care is essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community and country can afford to maintain at every stage of their development, in the spirit of self-reliance and self-determination.

Village Health Posts are community centres owned by communities whereby the DOH provides basic PHC services in areas where there are no clinics. These serve as mobile clinic station.

Ward-based PHC is Primary Health Services provided in a municipal ward.

War room is an identified structure in a ward where outreach teams (e.g. field workers, officials, municipalities, civil societies) work together to ensure that household profiling and interventions are done.

1.13 Organisation of the Study

The study is structured as follows:

Chapter One: Introduction

This chapter introduced the research topic and described the background to the problem, the context and the significance of the study. The problem being studied, the aim, the research objectives and questions are also discussed. The structure of the thesis chapters was briefly described.

Chapter Two: Literature Review

Chapter two presents the different sources that were reviewed for the study and focuses on the theoretical frameworks and models guiding rural ward-based primary health care in various countries. The relevant acts and other legal frameworks mandating the KZN Department of Health are also presented. The chapter also explores the key relationships amongst previous studies on rural ward-based primary health care, the purpose of the study and the results of the current study. The chapter also discusses the empirical studies on the study topic.

Chapter Three: Evaluation of International and Sub-Saharan Africa ward based PHC Services

Chapter three discusses the evaluation of health systems of international countries, namely India, Brazil, Thailand and Cuba and Sub-Saharan Africa countries, namely Nigeria, Rwanda, Malawi and Haiti. The chapter also presented the best practices in these countries and a discussion of lessons for South Africa.

Chapter Four: Research Methodology

The chapter describes the research methodology and the research design, including population, sampling, data collection and analysis procedures. The ethical considerations, pilot study, limitations of the study and elimination of bias are also discussed. Relevant covering and permission request letters, as well as the letter of informed consent are presented in this chapter. These will be attached as appendices.

Chapter Five: Data Analysis and Findings

Chapter five presents the findings of the study. The findings are described and presented using tables, graphs and figures. The chapter presents an interpretation of the results of the study as well as the implications for practice and management processes of rural ward-based community care in the districts of KwaZulu-Natal. The linkages are made between the literature review, the findings presented in chapter five and the conclusions.

Chapter Six: General Conclusions and Recommendations

Chapter six is the final chapter of the study. General Conclusions and recommendations are provided. This presentation also includes the Integrated Ward-based PHC Model developed from findings conclusions and recommendations.

1.14 Conclusion

The study aimed to evaluate the management of rural ward-based primary health care in UDM in KwaZulu-Natal and propose an evaluation framework for primary health care for rural areas. Chapter one discussed the background of the study;

location of the study; statement of the problem; purpose and objectives of the study; significance of the study; and research methodology. Chapter one also provided ethical considerations; permission letters and definition of terms. Chapter two reviews the literature on the management of rural ward-based PHC.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

A brief overview of the health system in South Africa is presented by giving a national perspective and a description of the PHC services at this level, followed by a provincial, district and ward-based health system description. Chapter two presents relevant literature and discusses theoretical frameworks and models guiding rural ward-based primary health care. The relevant acts and legal framework mandating the KwaZulu-Natal Department of Health (KZN DOH) is also presented. The literature review will guide the study by highlighting the shortcomings and controversies of the different theories, models and empirical studies. The conceptualisation of the Community Care Giver (CCG) will mark the end of the chapter.

2.2 The South African Health System

The national health system has a responsibility not just to improve people's health but to protect them against the financial cost of illness and to treat them with dignity. Three fundamental objectives of this system are;

- To improve the health of the population they serve;
- To respond to people's expectations; and
- To provide financial protection against the costs of ill-health.

PHC was viewed as a provincial function which has resulted in the rendering of primary health care services by two authorities, namely local government and provincial government. Not all the provisions of the Constitution of South Africa and the Health Care Act No 61 of 2003 are fully implemented in the delivery of PHC services in rural communities.

The DoH creates job opportunities through normal recruitment from OSS profiled individuals and also participates in the Extended Public Works Programme (EPWP)

where, in consultation with the ward leadership, destitute individuals are recruited for general work such as cleaning gardens and grounds or buildings in health facilities. The DoH has child and maternal programmes to address morbidity and mortality, as well as strategies to address HIV and AIDS, TB, malaria and other communicable diseases. The South African government has increased access to Antiretrovirals (ARVs) by all eligible persons, resulting in the reduction of deaths from HIV/AIDS.

South Africa faces challenges of high child mortality due to pneumonia and severe malnutrition for example, while women die due to complications from pregnancy induced hypertension (PIH), teenage pregnancy and HIV/AIDS. KwaZulu-Natal has the highest HIV/AIDS prevalence which is assessed through annual antenatal surveys. UThukela District Municipality's rate is currently at 36.7%. Though this has moved from red to amber, it is still high as the target should be below 30%. South Africa also faces a quadruple burden of disease, namely diabetes, hypertension; asthma; and trauma and injuries. These diseases result in early deaths, while trauma or injuries result in expensive health care, increasing the burden to the state in the form of disability support grants.

2.3 Legislation and policies informing Health Care in South Africa

Health care services are mandated by legislation, policy and the programmatic context in which significant transformation is taking place. Legislation aims to achieve an optimal life for all citizens and is echoed through all the regulatory prescripts within which the Department of Health functions. According to the Constitution of RSA (1996:15), health is a fundamental right and everyone is entitled to health care. However, health care prevails in a socio-economic system which determines the health of individuals and of communities. The South African health system was guided by the international system as determined by the WHO. Though there have been developments in the SA health care system since 1994, the country is still facing an increasing burden of disease and high mortality. Developments include the restructuring of the health sector in order to promote equality in the provision of public health through a decentralised system that enhances governance and the management of health issues.

2.3.1 Millennium Development Goals (MDGs)

2.3.1.1 History and background of MDGs

According to Hulme (2009:4), the MDGs are a result of a declaration signed by 189 countries including 147 heads of state and government at a Millennium Summit held in September 2000. The summit was held in the framework of the 55th General Assembly of the United Nations. The MDGs specify eight goals and provide a framework for 48 basic and 5 alternative indicators. The MDGs were then approved in September 2001 at the 56th United Nations General Assembly. The MDGs were to be achieved by 2015. The president of each country reports in accordance with the reporting framework which was developed in 2003. The MDGs require countries, by 2015, to:

MDG 1: Eradicate extreme poverty and hunger
MDG 2: Achieve universal basic education
MDG 3: Promote gender equality and empower women
MDG 4: Reduce child mortality
MDG 5: Improve maternal health
MDG 6: Combat HIV/AIDS. Malaria and other diseases
MDG 7: Ensure environmental sustainability
MDG 8: Develop a global partnership for development

The Department of Health plays an important role in ensuring that MDGs 4, 5 and 6 are achieved. However, Hulme (2009:8) argues that the historical evolution started as early as 1990 where countries focused on human development and eradication of poverty. This meant that critical areas such as education and health; issues such as child mortality, maternal health, HIV and AIDS; and other communicable diseases were overlooked. Health reports indicate that aggressive strategies implemented from 2009 to curb the scourge of HIV and AIDS in South Africa are reaping the rewards. For example, the introduction of the MPTCT programme which prevents the transmission of HIV to a baby reduced the transmission rate from 1.8% in 2013 to 1.1% in 2014 in UThukela District Municipality (District Quarterly Report 2014: 34).

In 2010, a MDG Summit was held and it provided evidence from the ground on what works and what does not. Countries know what needs to be done to achieve the MDGs but progress in implementation is lacking or has slowed in many countries. An outcome document called for acceleration of the agenda for the MDGs. A Millennium Acceleration Framework (MAF) was developed and tested over 2009-2010. The MAF aimed at responding to national and local political determination to deal with off-track MDGs, drawing upon country's experiences and identified bottlenecks which hinder the implementation of MDGs; using lessons learnt to identify objectives and solutions for the acceleration of MDGs; and lastly, creating partnerships with identified roles of stakeholders to jointly achieve MDG progress. The MAF was rolled-out in 20 countries in 2011-2012 where the Department of Health re-committed to the following four (4) MDGs, namely;

1. Eradicate severe poverty and hunger;
2. Reduce child mortality;
3. Improve maternal health; and
4. Combat HIV and AIDS, malaria and other diseases (Mngomezulu 2014: 5)

These required a focussed effort and re-allocation of resources for health care.

2.3.1.2 Progress on MDGs

A world MDG report (2013:11) highlighted that progress on targets, namely poverty; slums and water; primary education; child survival; and access to treatment of people living with HIV was increased in countries from December 2009 although the target of universal access was not met by 2010. There was a reduction of maternal mortality and an improvement in maternal health (MDG 5), though progress is slow. China, India and Thailand were some of the successful countries in implementation of MDGs. The outcomes of international and Sub-Saharan Africa are discussed in detail in chapter three.

2.3.1.3 Arguments related to MDGs

- **Millennium Development Goals**

Some authors argue that the MDGs were not aimed at accelerating the pace of development and did little for countries that achieved the goals within 10 - 15 years.

- **Too narrow a scope of development**

Others view MDGs as having too narrow a scope of development as many areas are still not addressed. For example, indicators for political deprivation like human and civil rights. This is true for South Africa since there is a high rate of violence and crime despite the 16 days of Activism and moral regeneration campaigns that are conducted annually in order to restore the moral fibre to societies and change bad behaviour, thus reducing gender-based violence against women and children.

- **MDGs as goals without theory**

According to the United Nations Conference (2012:18), the goals were articulated differently and understood in terms of a concept of human development. They lacked a sound framework or theoretical underpinning. MDGs became vulnerable and focused mainly on specific concerns raised. For example, explicit grounding in development theory was undermined to avoid possible opposition in case there were differences with the theory.

- **MDGs stipulated without considering the country's conditions**

There is a view that targets were set too high or too low for some countries (Easterly 2009:26). For example, it is not easy to reach 100% from 20% or to eradicate poverty as there are multiple contributory factors like lack of skills and unemployment. These are social determinants of health which makes it difficult to promote maternal and child health, as well as effectively manage HIV/AIDS. The South African health system has been focusing on curative and hospital-centred services at the expense of health promotion and disease prevention. This resulted in low PHC utilisation rates, low immunisation coverage and high defaulter rates as patients could not afford to pay for transport and hospital fees or wait in a queue for a long time. M&E is also a challenge as data is incomplete and inaccurate and therefore not effective for strategy formulation and decision making by management.

2.3.2 National Development Plan 2030

In May 2010, President Jacob Zuma appointed the National Planning Commission to draft a vision and national development plan. The Commission came up with a diagnostic report on the achievements and challenges of the South African democratic government since 1994. One of the challenges identified by the report was that the public health system cannot meet demand or sustain quality (National Planning Commission 2011:15). The Commission came up with a draft national plan in 2011 after widely consulting with parliament, the judiciary, national departments, provincial governments, development finance institutions, state-owned entities, local government formations, unions, business, religious leaders and non-profit organisations. The plan is also known as Vision 2030 (Zarenda 2013:7). The plans comprises 15 chapters of which Chapter 10 (Health Care for All) is relevant to the Department of Health. The NDP was then integrated into the broad government planning process, namely the 14 Medium Term Strategic Framework (MTSF). Outcomes identified from the NDP include health (National Planning Commission 2011: 33).

Health as a priority is second to education. The NDP 2030 envisions a health care system that works for all, produces positive health outcomes and is accessible to all. It is expected that by 2030:

- The life expectancy would be increased to 70 years;
- A generation of under-20s is largely free of HIV;
- The burden of disease is reduced;
- Infant mortality rate of less than 20 deaths per thousand live births and under-5 mortality rate of less than 30 per thousand are achieved;
- A significant shift in equity, efficiency and quality of health service provision is achieved;
- Universal Coverage is achieved; and
- A significant reduction in social determinants of disease and adverse ecological factors is achieved (National Planning Commission 2011: 61).

In order to achieve the above, the NDP recommended that the Department of Health should design and pilot a nutrition intervention programme for pregnant women and young children (National Planning Commission 2011: 62). Coverage of antiretroviral treatment to all HIV-positive persons requiring such drugs should be expanded, alongside the treatment of high-risk HIV-negative persons. Effective microbicides should be offered routinely to all women 16 years and older.

The NDP's focus areas are consistent with the WHO perspective. The NDP provides nine long-term health goals and identifies key interventions to achieve a more effective health system. The Department of Health operates within the realm of the National Development Pla, to complete health system reforms to provide PHC to families and communities; to fill posts with skilled, committed and competent individuals; and to obtain universal health care coverage. Universal health care coverage includes the implementation of the National Health Insurance (NHI) scheme in order to improve the quality of health in public facilities, avail doctor services at clinics through general practitioner (GP) contracting and reduce the cost of private medical care.

The NDP also functions within the premise of the Negotiated Service Delivery Agreement (NSDA) Outcome 2 that seeks to strengthen health system effectiveness through the re-engineering of PHC; improve health infrastructure availability; improve human resources for health; strengthen financial management; improve healthcare financing through NHI; and strengthen health information systems (National Planning Commission 2011:62). South Africa and therefore the KZN province and UThukela district are harnessing all efforts in the implementation of the NDP in order to achieve positive health outcomes utilising the WHO Health Services Framework.

2.3.3 The Constitution of South Africa, Act No.108 of 1996

KwaZulu-Natal Department of Health annual report (2013:19) emphasised that the Constitution of the Republic of South Africa, Act 108 of 1996, as the supreme law of the country, provides the legal foundation for the existence of the republic; sets out the rights and duties of its citizens, and defines the structure of the government.

Chapter two is a bill of rights which enumerates the civil, political, economic, social and cultural human rights of the people of South Africa. Most of these rights apply to everyone in the country, with the exception of the right to vote, the right to work and the right to enter the country, which apply only to citizens. They also apply to juristic persons to the extent that they are applicable, taking into account the nature of the right. The Constitution of South Africa provides for human rights like the right to life and the right to health. The Department of Health in terms of the Nation Health Act (Act 61: 2003:6), as amended observes these rights by promoting health and preventing disease as well as the preservation of life. This can be achieved by having adequate and highly skilled staff that will implement strategies to prevent avoidable deaths within a prevailing compassionate and caring environment.

2.3.4 Service Transformation Plan

2.3.4.1 Background to the Service Transformation Plan

As part of the transformation process in the public service the National Department of Health, in 2006, asked provincial departments of health to develop Service Transformation Plans (STPs). A Service Transformation Plan (STP) is a 10-year plan (long-term plan) designed to help provinces to improve service delivery by assessing provincial health needs against existing health services and budgets. Following the democratic elections in the Republic of South African in 2009, provinces were requested to finalize their STPs and align them with the new administration's ten-point plan.

The aim is "to transform the Provincial health care system through the implementation of the 10 core components of the Service Transformation Plan (STP) to improve equity, access and availability, efficiency, quality and effective management to enhance service delivery and improve the health outcomes in the province". These became the strategic oriented goals one of which is to overhaul provincial services (Annual Report 2013/14: 40). The objectives of the STP include:

- Review the nature and extent of health services in each province;
- Develop optional scenarios for future improvement of health services;
- Estimate budgetary needs over a ten-year planning period; and
- Provide the information needed to develop short and long-term health plans.

The KwaZulu-Natal Department of Health is committed to identifying practical solutions on how to address the health-related challenges that infringe upon the constitutional rights of people in the province. The MEC for KZN health emphasised that quality of care is one of the indicators of health system performance and influences health outcomes. Giving his strategic direction for 2014, the following were pronounced in line with National and KZN DOH priorities. The Health Service Transformation Plan (STP) would take the department through to 2014.

A systems approach was used to evaluate the management of rural ward-based PHC services in relation to the activities, interventions provided by the respondents and health outcomes reflected in district performance reports. The theories and models followed in the study will be used to guide the study and equip managers and leadership with an opportunity to measure the level of performance. Therefore, monitoring and evaluation will entail the collection and analysis of achievement, gaps and challenges with the provision of ward-based PHC services in the district municipality. Actual health outcomes will then be compared with the above strategic objectives and targets which are reflected in the district plan and the annual performance plans.

2.3.5 National Health Act No.61 of 2003 as amended

The National Health Act provides a framework for a uniform health system within South Africa in line with the Constitution and other laws in national, provincial and local government spheres regarding health services. Chapter one of the Act provides the responsibility for health and eligibility for free health services (Act 61: 2003:6), as amended. The Act is relevant to this study as it guides how health services should be provided, as well as the roles and responsibilities of various stakeholders. Chapter five of the act provides for the implementation of district development and the district health system.

2.3.6 National Health Insurance (NHI) White Paper

In terms of the NHI White Paper (2010:4) National Health Insurance is a scheme where people contribute to the health services of those who do not have or cannot afford these. The NHI intends to respond to social issues. It addresses the issue of equity which is one of the features of PHC so that the health care resources

available are not in the hands of a few. In essence, resources should be accessible and affordable to all, implying that the NHI should contribute to equity and social justice. The outputs of the NHI include the following:

- Effective functioning and integration of new primary health delivery models in the form of Municipal Ward-based Outreach teams, District Clinical Specialists and School Health Services, including an evaluation of their effectiveness.
- Improved Pharmaceutical supplies management systems and processes to support the efficient and effective provision of health services within the District.
- Improved supply chain management in relation to the non-negotiable.
- Enhanced district capacity in the areas of District health system planning and monitoring and evaluation, including research /impact assessment reports of selected interventions.
- A rational referral system based on a re-engineered primary health care platform with a particular focus on rural and previously disadvantaged areas.

Currently, the NHI is piloted in three district municipalities in KZN, namely Amajuba, UMzinyathi and UMgungundlovu. However, UDM has been adopted by UMzinyathi and Amajuba district municipalities as the three district municipalities from Region three. The purpose is for UDM to prepare for the NHI rollout after five years of pilot. It is anticipated that the lessons learnt from the two districts will equip UDM especially with the implementation of family health teams (WBOTs) and doctor contracting for the implementation of PHC services in rural wards.

Policies and protocols are in place and there is strong political commitment nationally, provincially and locally at the district and local municipalities. However, there are challenges during the implementation of NHI at pilot sites. These include the unsuccessful recruitment of scarce skills, namely WBOTs and district clinical specialists, especially specialist doctors and private GPs for contracting. The

availability of vehicles for the teams is also a challenge. Limited rural connectivity and the lack of quality data hinders informed decision-making and therefore non-responsiveness. Monitoring and evaluation occurs in the form of monthly and quarterly meetings, morbidity and mortality reviews in facilities and within the district municipality at district health management meetings, war room meetings.

Information is also shared at IGR and stakeholder meetings and PHC Indaba head annually within the district municipality.

2.3.7 Human Resource Health Strategy for the Health Sector

The effective provision of health services depend on adequate quantities of skilled and committed human resources. These resources must be optimally utilized. However the department of health has a challenge in the shortage of staff and critical skills to enhance health care outcomes. The Human Resource Health Strategy for the Health Sector was developed in 2012 and it addresses skill shortage in the health department. The 5-year Human Resource Health Strategy for the Health Sector (2012:67) provides for the district specialist teams, outreach teams and school health teams for the implementation of the PHC re-engineering model. The NDP requires the deployment of health teams to provide care in families and communities (National Planning Commission 2011:61). Hence, the study will evaluate ward-based PHC in UDM.

2.3.8 The Negotiated Service Delivery Agreement and restructuring of PHC

The South African Government, in its programme of action for the period 2010 – 2014, agreed on 12 key outcomes as the key indicators. The President signed what was called the Negotiated Service Delivery Agreement (NSDA) with each minister. The NSDA is a charter that reflects the commitment of key sectoral and intersectoral partners linked to the delivery of identified outputs as they relate to a particular sector of government. Each outcome area is linked to a number of outputs that inform the priority implementation activities that will have to be undertaken over the given timeframe in order to achieve the outcomes associated with a particular output. For the health sector, the priority is improving the health status of the entire population and to contribute to Government's vision of "A Long and Healthy Life for All South Africans", which is line with the MDGs (Mngomezulu 2014: 5).

The strategic outputs enlisted by the NSDA are as follows:

- Output 1: Increasing life expectancy;
- Output 2: Decreasing maternal and child mortality;
- Output 3: Combating HIV and AIDS and decreasing the burden of diseases from tuberculosis; and
- Output 4: Strengthening health system effectiveness (Annual Performance Plan 2010/11 - 2012/13: 38; Mngomezulu 2014: 5).

Concrete achievements that show improvements in the effectiveness of the health system must be achieved and verified by evidence that clearly links to the four output areas.

2.4 The Sustainable Development Goals (SDGs)

The sustainable development goals were introduced fifteen years after the MDGs were established as the MDGs were reaching their expiry date in 2015. As discussed above, surveys show that there has been progress made in alleviating poverty; improving education and health; and reducing hunger-though much still needs to be done. The SDGs outline seventeen steps to better the lives of the people for the next fifteen years.

2.5 Models and frameworks of health care delivery

2.5.1 The Health Systems

Based upon the Alma Ata declaration, PHC is the foundation of health system and it is the first level of contact of individuals, the family and community with the national health system. PHC brings healthcare as close as possible to where people live and work, and constitutes the first element of a continuing health care process. Priorities of PHC include addressing the community's health problems and providing promotive, preventive, curative and rehabilitative services. According to De Savigny and Adams (2009: 53), health systems are dynamic and interconnected systems that are people centred. The system considers people as vital parts of the health system.

Figure 2.1 below represents the health system and its subsystems, namely governance, information, financing, service delivery, human resources, medicines and technology. The dark blue areas reflect the interconnectedness of the subsystems. For example, if human resource is dysfunctional the entire system becomes dysfunctional as service delivery is affected and there will no medication at facilities, especially in clinics. The continuous interactions of the subsystems result in dynamism. People represent the community as they are the beneficiaries of health care. They must not be viewed as passive recipients but should be encouraged to actively participate in all issues affecting their health. De Savigny and Adams (2009: 53) emphasise the importance of the relationships amongst the subsystems, namely as they influence one another. For instance, leadership and governance are related and if there are no strategic plans, clear policies and clinical protocols developed by leaders, health care governance will be compromised.

Figure 2.1: Dynamic and interconnected health systems at whose heart are people

Source: De Savigny and Adams (2009: 53)

However, there is no guarantee that people will be active recipients of health due to the fact that there are other factors that influence health-seeking behaviour, Values, norms, beliefs and interests drive people to use the health system. A common behaviour in UDM is the use of traditional medicine by pregnant women who only come to the clinic to book a bed when they go into labor. This behaviour prevents screening before 20 weeks of pregnancy to detect problems and treat them early. The current national health system focuses on curative services that are preventive and promotive health services, thus placing more strain on already limited resources.

2.5.1.1 The World Health Organisation (WHO)

The World Health Organisation (WHO) Report (2012:3) defines the World Health Organisation as a specialized agency of the United Nations (UN) that is concerned with international public health. It was established on 7 April 1948, with headquarters in Geneva, Switzerland. The World Health Organisation is the part of the United Nations that focuses on global health issues. The WHO is the directing and coordinating authority for health within the United Nations system. It is also responsible for providing leadership on global health matters; shaping the health research agenda; setting norms and standards; articulating evidence-based policy options, providing technical support to countries and monitoring and assessing health trends. The organization has been working for over sixty years on health issues such as smallpox eradication, family planning, childhood immunizations, maternal morbidity rates, polio eradication and AIDS.

2.5.1.2 The WHO Health System Framework

Figure 2.2 identified six building blocks of the WHO health system framework, namely service delivery, health workforce, information, medical products, vaccines and technologies, financing and leadership and governance. The building blocks focus on access, coverage, quality and safety issues. The overall goals and health outcomes include improved health, responsiveness, social and financial risk protection and improved efficiency justifying resource investment and utilisation and also measures return on investment (WHO Report 2012: 6).

The WHO health system framework focuses on effective, efficient, sustainable and cost-effective PHC delivery. The model includes the balanced scorecard namely the financial resources; customer; internal staff; innovation; and learning perspectives. The implementation of the PHC model is based on the principles of equity, accessibility, affordability, availability, effectiveness and efficiency. The health system is a social determinant of health and provides opportunities for positive interventions (Clift 2013:45).

Figure 2.2: The WHO Health System Framework

Source: Re-engineering Primary Health Care in South Africa, discussion document (November 2010:3)

The framework is linked to M &E in that health facilities should deliver services. Inputs such as adequate and competent staff, supplies, finances, medical equipment and medicines are required to deliver these services. Management at various levels of care should provide leadership and design policies and systems that will promote service delivery. Governance will include the active participation of clinic committees and other ward structures in health care issues, for example OSS structures at the local municipality (Local Task Team) and ward level (Ward Task Team). Outcomes are reflected as improved health services and are determined by better quality, access, safety and efficiency. Monitoring and evaluation assesses the

impact of these components in improving health;responding to community needs; as well as social and financial risk protection (through NHI) and improved efficiency (NDoH 2011:16).

The South African health system through the new PHC re-engineering model seeks to ensure that there is increased access to health services and that there is enough coverage at the ward level. The National Core Standards (NCS) are organised into seven domains. The core business of the health system of delivering quality healthcare to clients is represented by the first three domains, namely patient rights; safety, clinical governance and care; and clinical support services while the remaining domains namely, public health, leadership and corporate governance, operational management and facilities and infrastructure represent the support systems for healthcare delivery. Staff is critical in achieving these standards (NDoH 2011:22).

2.5.1.3 Critique of the WHO Health System Framework

The WHO Health System Framework provides a framework for the South African health care system in line with the programme and priority setting discussed above. However, the South African health care system has the following shortcomings:

- Local government is not indicated. Districts comprise of municipal wards and health care services are provided in these wards.
- It does not accommodate community participation, yet community involvement and empowerment are critical for health promotion and disease prevention. For example, communities should take a lead in healthy life-styles or taking treatment correctly.
- It does not indicate interrelationships between the building blocks or subsystems. For example, shortages or low levels of skills of the health workforce impact negatively on service delivery and ultimately influence health outcomes. Facilities are failing to match the staffing to the service needs at all clinic levels. Staff development, learning and performance management are provided but cannot function as it possibly could because of inadequate funds. Institutions are unable to increase the quantities of

those that are trained. Skilled staff is more mobile and therefore facilities poach from one another. Institutional memory is therefore a problem.

- There is also no feedback. The health care system should receive feedback from its internal and external environments and should therefore be adaptive. The continuous responsiveness of the PHC facilities can be achieved through effective engagement with other stakeholders.
- Effective technical and policy support by management includes articulating ethical and evidence-based policy mandates, implementing change and building sustainable institutional capacity. It requires management to continually monitor the health situation and assess health trends in order to improve health outcomes.

A new model for ward-based primary health care services is therefore required in order to address the shortcomings in the WHO Health System Framework. The new model for instance, should include local government, municipal wards with clear war rooms as subsystems and interactions amongst various stakeholders.

2.5.2 Primary Health Care (PHC) model

Primary Health Care (PHC) originated in South Africa between 1939 and 1970. The Pholela Health Centre model is a forerunner to community-oriented primary care (COPC) and it informed and defined the practice of PHC. Wikipedia (last updated, 12 December 2015), defines PHC as essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community and country can afford to maintain at every stage of their development, in the spirit of self-reliance and self-determination. Therefore, ward-based PHC refers to services provided in a municipal ward.

PHC was provided using CCGs in resource-limited settings where there was a shortage of health professionals in order to expand the provision of health care. In practice, CCGs receive training that can extend from one or two weeks to more than three months (Javanparast, Heidari and Baum 2011: 4).

2.5.2.1 PHC services at a Provincial Level

The historical evolution of Primary Health Care in KZN started in 1939 in the Sisonke District (Now called Harry Gwala) by the Kark family and was known as the Pholela CHC. The PHC in KZN is guided by the Alma – Alta declaration in 1978, the National Health Plan in 1996 and the National Health Care Act No. 61 of 2003 (as amended). Chapter five of the Act provides for the District Health System. In line with the President's War on Poverty Strategy, the KZN Premier developed and launched the Flagship in 2009 which was rebranded as OSS in 2010 and which was implemented together with the re-engineering of PHC in 2011. According to the amended National Health Care Act (No 61 of 2003), the PHC delivery model is based on effective, efficient, sustainable and cost-effective health services. Therefore the re-engineering of PHC is in line with the Premier's OSS. Interpretation of legislation also affects service delivery. For example, problems exist due to inadequate communication between local government and the health department for a mutual understanding of health issues like HIV/AIDS management strategies. Legislation requires all district and local mayors to have functional District and Local AIDS Councils (DACs and LACs) in place to address HIV/AIDS and other social ills.

The National Treasury has announced budget cuts for the MTEF period; thus further limiting funding and resources for PHC services. This affects service expansion. For example, increasing ward-based outreach teams and professional nurses at clinics so that the OM focuses on 80% of management issues and 20% of clinical care which is currently the opposite in reality.

Dookie and Singh (2012:2); Gray, Vawda and Jack (2013:26); and the NDoH DHS Strategy Review Draft (2013:5) assert that the KwaZulu-Natal province's inability to successfully implement the District Health System has given little attention to PHC. Similar to other provinces, challenges faced by districts have been discussed at various levels of management, namely development of district services, development of sub-districts; and decentralization of resources to strengthen PHC services. There has been a gross staff shortage especially with, the clinical staff; inadequate or dysfunctional equipment; shortages of supplies; and shortages of drugs at the clinics. The hospital out-patients departments are overcrowded by

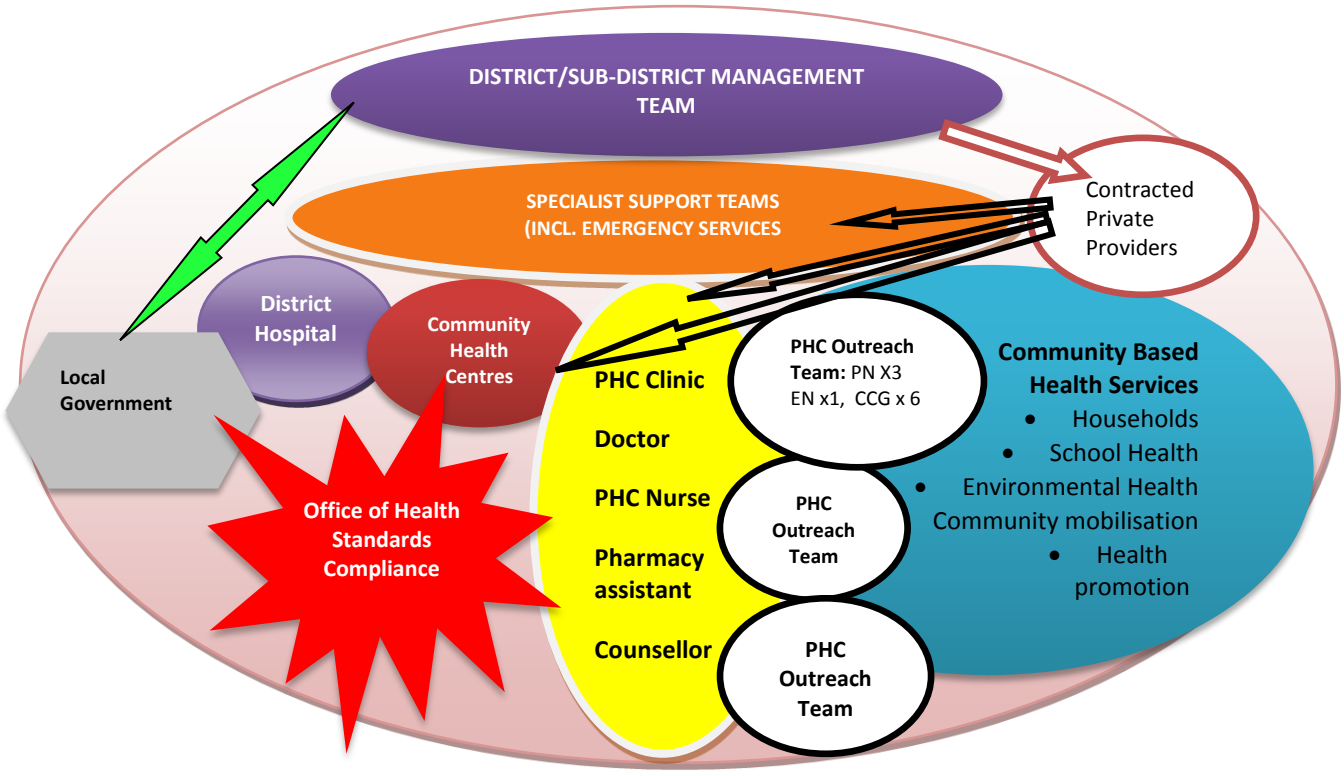
patients that bypass clinics, resulting in expensive health care delivery. However, the province set a precedence by providing a successful model of how the ward-based PHC outreach teams' stream can be implemented before the National Health Plan in terms of the KZN Provincial Guidelines (2010:14).

A key success factor has been the coordination of many community-level workers from different programmes within the health sector and from other departments (such as the Department of Social Development and Local Municipalities) into one cadre of 'Community Care Givers' who were provided with the same training and mentorship and made ward-based. PHC re-engineering is relevant for the study as it focuses on community-based PHC, is in line with OSS in KwaZulu-Natal and is municipal ward-based. According to KZN Provincial Guidelines (2010: 14), the norm ratio for the KZN DOH is 150 households in urban areas and 60 households in rural wards.

2.5.3 The District Health System

Ward-based PHC delivery is reflected in a DHS model in Figure 2.3 below.

Figure 2.3: The District Health System Model



Source: KZN PHC Re-engineering progress (2014: 3)

The District Health System (DHS) is the vehicle for delivering ward-based Primary Health Care (PHC). Primary health care is provided at community health centres and clinics (fixed or mobile). The District Health System identified a range of services in the community, as well as in the facilities and district hospitals. It is important that health providers, communities and individuals know which services will be provided at which facilities in accordance with the revised PHC package that was drawn up in 2002 (NDoH 2012:7).

OSS intends to create and maintain functional task teams at provincial, district, local and ward levels in order to deliver comprehensive, integrated, transversal services to individuals, households and communities. The PHC (ward-based) outreach teams include the DCSTs and contracted GPs work within OSS. These teams ensure that stakeholder engagement and advocacy plan are developed and implemented (OSS Implementation Model 2011:26).

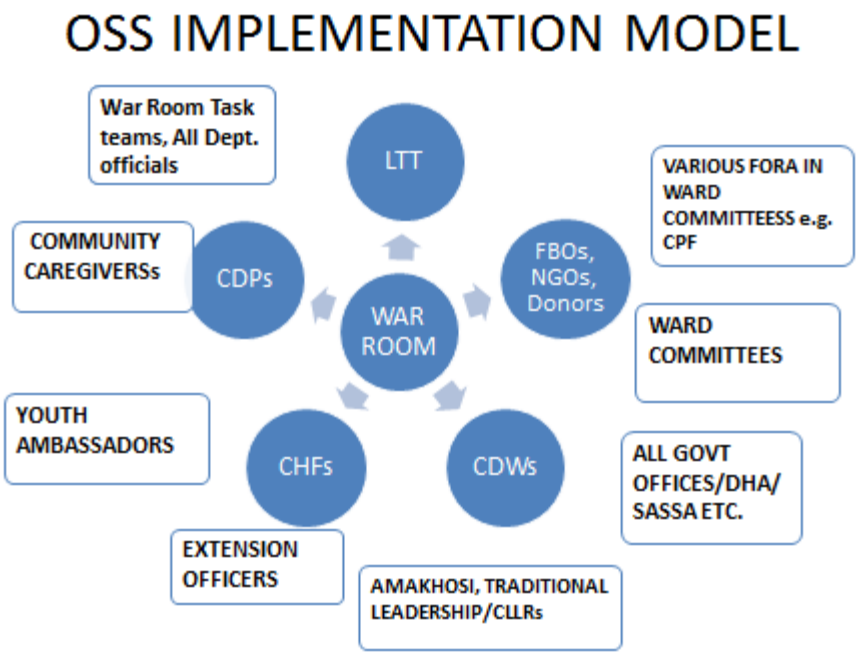
The district and local municipality, Office of Health Standards Compliance (OHSC), the district hospital and the Community Health Centre monitor, evaluate, provide feedback and track service delivery.

However, shortage of staff and vehicle pose limitations in the implementation of the model.

2.5.4 Operation Sukuma Sakhe Model

Operation Sukuma Sakhe is a service delivery model which allows for joint planning so that there is no duplication of service delivery. There is a pooling and sharing of resources and the provision of services in a holistic manner. Figure 2.4 below illustrates the implementation model of Operation Sukuma Sakhe (OSS) in the province and UThukela district. OSS, formally known as the flagship programme, is the KZN Premier Dr Zweli Mkhize's brain child, from 2009 (Operation Sukuma Sakhe Implementation Model 2011:10).

Figure 2.4: Operation Sukuma Sakhe (OSS) Implementation Model



Source: Operation Sukuma Sakhe Implementation Model (2011:10).

The mission of OSS is to provide comprehensive, integrated and transversal services to communities through effective and efficient partnerships. Operation Sukuma Sakhe aims to rebuild the fabric of society by promoting human values, fighting poverty, crime, diseases, deprivation and social ills, thereby ensuring moral regeneration by working together through effective partnerships. Partnerships include civil society, development partners, communities and government departments, to provide a comprehensive integrated service package to communities. OSS focuses on individuals, households and communities at a ward level. The programme comprises three sub-programmes, namely:

- Sub-programme 1: Food security programme;
- Sub-programme 2: Creating healthy and sustainable communities; and
- Sub-programme 3: Integrated programme for youth and women

Following the launch of the Operation Sukuma Sakhe (OSS) in July 2009, the KZN Premier, Dr Zweli Mkhize, called for the Integration of CCGs in KwaZulu-Natal in 2010 (Matfield 2010:87). The call was based on the fact that the Department of Health, Department of Social Development (DSD) and NGOs had Community Health Workers (CHWs) and Home-Based Carers (HBCs) respectively doing the

same job but receiving different stipends. Integration of these groups into CCGs aims to make an observable impact instead of each department or NGO working in silos. The DOH absorbed all the previous CHWs and HBCs from the DSD and the NGOs. They receive a standardised stipend of R1500 per month and the CCG Supervisors received R2 000 per month.

Integration of these groups has resulted in consistency in stipends, CCGs were providing an integrated service and referrals to relevant departments was facilitated. For example, if a CCG finds a social issue like child abuse or hunger, they will then refer the matter to an official allocated to the ward or war room at the DSD office. Similarly, if there is no birth certificate or identity document for an individual and where the child or the elderly person cannot obtain a social grant, the matter will be referred to an official representing the Department of Home Affairs (DHA) in the ward or municipality.

In addition, OSS has created change agents in the families who in turn help the families to graduate out of poverty. Change agents were created by awarding bursaries for study in tertiary institutions or offering employment in order to earn a salary. For example, a bursary is awarded to a grade 12 pupil to study medicine or other scarce skills like pharmacy or radiography so that the person is offered employment after completing the course. One case study saw a child heading a family and who had passed Grade 12 with flying colours but could not pursue tertiary education due to lack of funds. The household was profiled by a CCG, sponsorship was sourced and the child was sent to a university where she graduated in 2012 and obtained employment in a local municipality. The graduate has since built a house and is taking care of three siblings' education. Hence she became the change agent (UThukela OSS quarterly report 2013:7).

- **Relevance**

The model is very relevant to creating healthy and sustainable communities in the sense that communities take charge of their wellbeing and health. The war rooms are designated for communities to discuss issues affecting them with interventions

to fight social ills, disease and eradicate poverty (Matfield 2010:7). The Operation Sukuma Sakhe model will also guide the study as it aims to evaluate rural ward-based PHC.

- **Challenges**

Despite the fact that the OSS model emphasises integrated service delivery, challenges include a shortage of fieldworkers and non-participating departments. Poor road infrastructure and the distances to travel make it difficult for CCGs to reach the monthly target of 60 home visits in rural areas. Most war rooms are not well resourced, resulting in the majority of war rooms being functional instead of being fully functional whilst some are poorly functional. These contribute to delays or non-implementation of interventions (War room functionality audit, 2014: 2). Figure 2.5 below is an illustration of the war room functionality in the district municipality.

Figure 2.5: War room functionality in UDM

	ETHEKWINI	UGU	UTHUKELA	UMGUNGUNDLOVU	ZULULAND	SISONKE	MZINYATHI	AMAJUBA	MKHANYAKUDE	UTHUNGULU
TOTAL WAR ROOMS ESTABLISHED	97	84	73	84	89	55	53	46	68	99
FULLY FUNCTIONAL	39	10	26	14	24	30	11	2	17	24
FUNCTIONAL	40	48	31	55	46	21	24	42	14	47
POORLY FUNCTIONAL	8	23	11	12	14	3	17	1	34	25
NOT FUNCTIONAL/ NOT ESTABLISHED	0	3	5	3	5	1	2	1	3	3

Source: War room functionality audit (2014:2).

- **Critique**

However, since its inception in 2009 the implementation of the model is not at the level where it should be. There are terms of reference but these are not always implemented and adhered to by stakeholders. For instance, not all stakeholders actively participate and some officials do not account. There is no effective

integration and there is therefore, failure to deal effectively with HIV/AIDS, TB and maternal and child health issues at ward level. An antenatal sero-prevalence survey conducted on pregnant women in 2012 discovered an increase in HIV/AIDS prevalence from 33.4% in 2011 to 37.1% in 2012. First visit before 20 weeks increased from 29.2 to 54.4% in 2013/14 but was still below the national target of 60%. The new infection rate was increasing among the young women and men aged 15-24 years (District Health Barometer 2013/14: 471).

Ward committees should actively participate in OSS but they are non- existent in some wards. Limited data and poor data management also contribute to ineffective interventions. The mainstreaming of OSS programmes in all municipal and ward programmes is hindered due to the lack of support by senior municipal management and a lack of inclusion of OSS into integrated development plans (IDPs).

Non-functional or poorly functional war rooms determine the low level of stakeholder participation, household profiling and diagnosis of health challenges. Home visits are done and activities and interventions are well spelt out so that they are monitored for impact or health outcomes. Communities should be able to discuss social ills and design programmes to address them, namely community awareness campaigns;, community dialogues; behavioural change campaigns for the youth, like teenage pregnancy, HIV/AIDS, STI'S, TB; and healthy life-styles. Government officials are led by operational managers or professional nurses from WBOTs.

The Political leaders, namely the District Municipal Mayor, Local Municipality Mayor and the Ward Councillor are known as OSS champions and are responsible for the oversight role at district, local municipality and ward levels. The OSS champions also assist with unlocking bottlenecks. For example, local municipalities have availed physical buildings and furniture for war rooms and Phila Mntwana centres. Phila Mntwana centres were established to address child health services, namely growth monitoring through weighing, use of mid-upper arm circumference (MUAC) tapes, health education and the administration of oral rehydration solution.

Operational managers or professional nurses from WBOTs, including CCGs, are responsible for the management of PHC services in the ward and referrals of clients to a CHC or district hospital for a higher level of care. PHC activities and targets are planned in accordance with the DHP and APP so that human resources and budgets are aligned to programme activities in order to enhance implementation. Monitoring and evaluation of these is done at various levels by the political champions and senior management teams.

2.5.5 Implementation of PHC at ward level within the Operation Sukuma Sakhe Model

The following picture (Figure 2.6) shows the actual delivery of PHC services within the OSS model in the KZN Province. It depicts the delivery of PHC services at a municipal ward level within the KZN Operation Sukuma Sakhe Model. Figure 2.6 illustrates the following:

(a) The CCGs as part of PHC delivery;

(b) The district office plays an oversight, support, coordination, mentoring, monitoring and evaluation role;

(c) The CCG conducts home visits and carries the home-based care kit to work with;

(d) The CCG refers patients to the clinic (fixed or mobile) for clinical care by the professional nurse;

(e) The professional nurse or the operational manager assesses the patient and refers him/her to a community health centre or district hospital for a higher level of care, should it be required. Transport will be provided by the local EMS base or the call centre for patient transfer;

(f) The community health centre or district hospital receives the patient and provides a higher level service package than a clinic. For instance, there is an X-ray department and laboratory to undertake further investigations; and

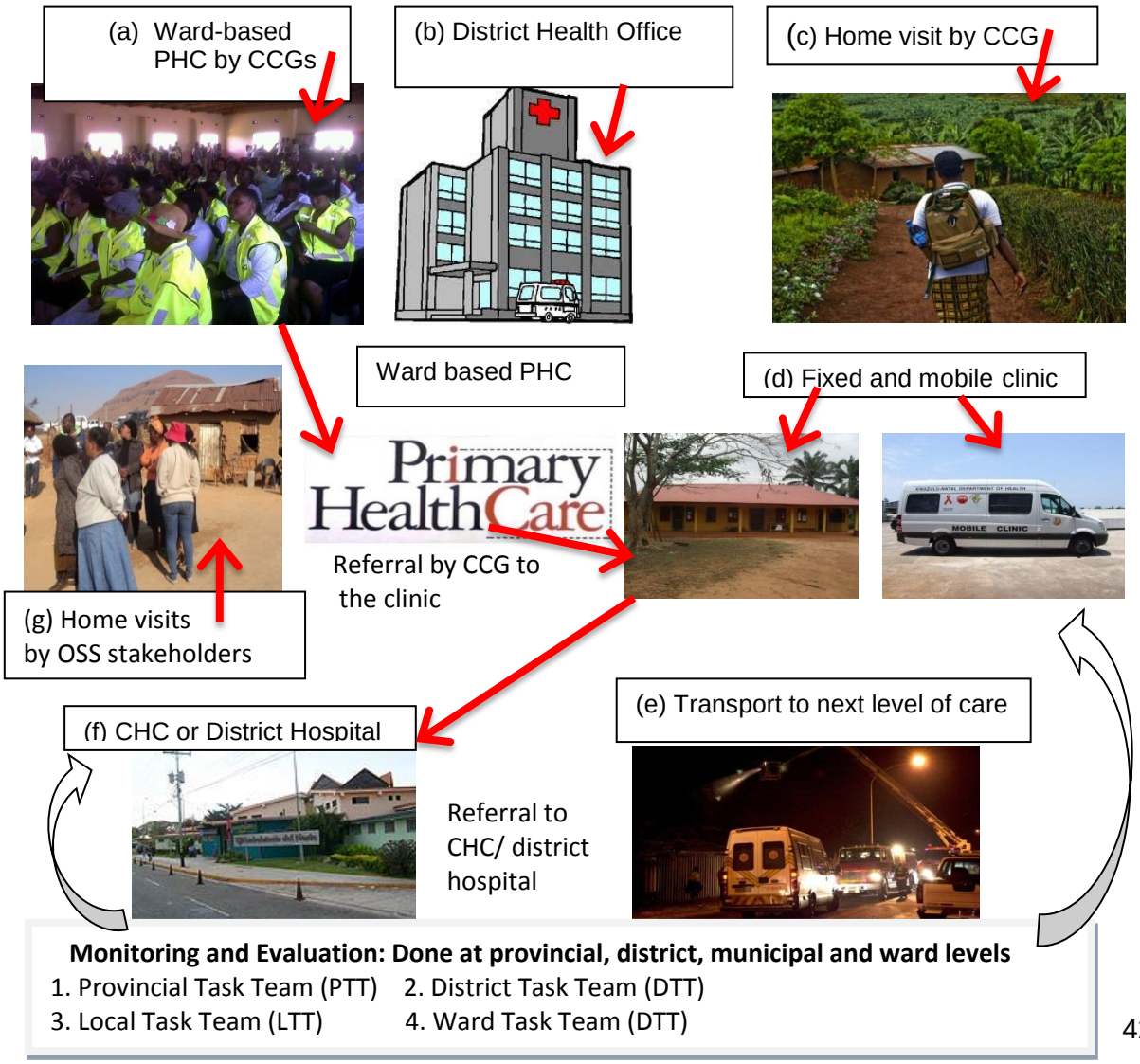
(g) This picture shows stakeholder collaboration where different officials from government departments, the municipality, NGOs and businesses visit a household

and jointly intervene so that the individual's or family's problems are addressed at once.

Field workers, including CCGs, do household profiling where they assess needs and identify interventions for that household. These role players along with different officials within OSS refer clients to the mobile or fixed clinic for health interventions where the clinic professional nurse will further asses the patient and refer them to the CHC or district hospital if the patient needs to be seen by the doctor at a higher level.

Figure 2.6 below illustrates the implementation of PHC at the ward level within the Operation Sukuma Sakhe

Figure 2.6: Implementation of PHC at ward level within the Operation Sukuma Sakhe Model



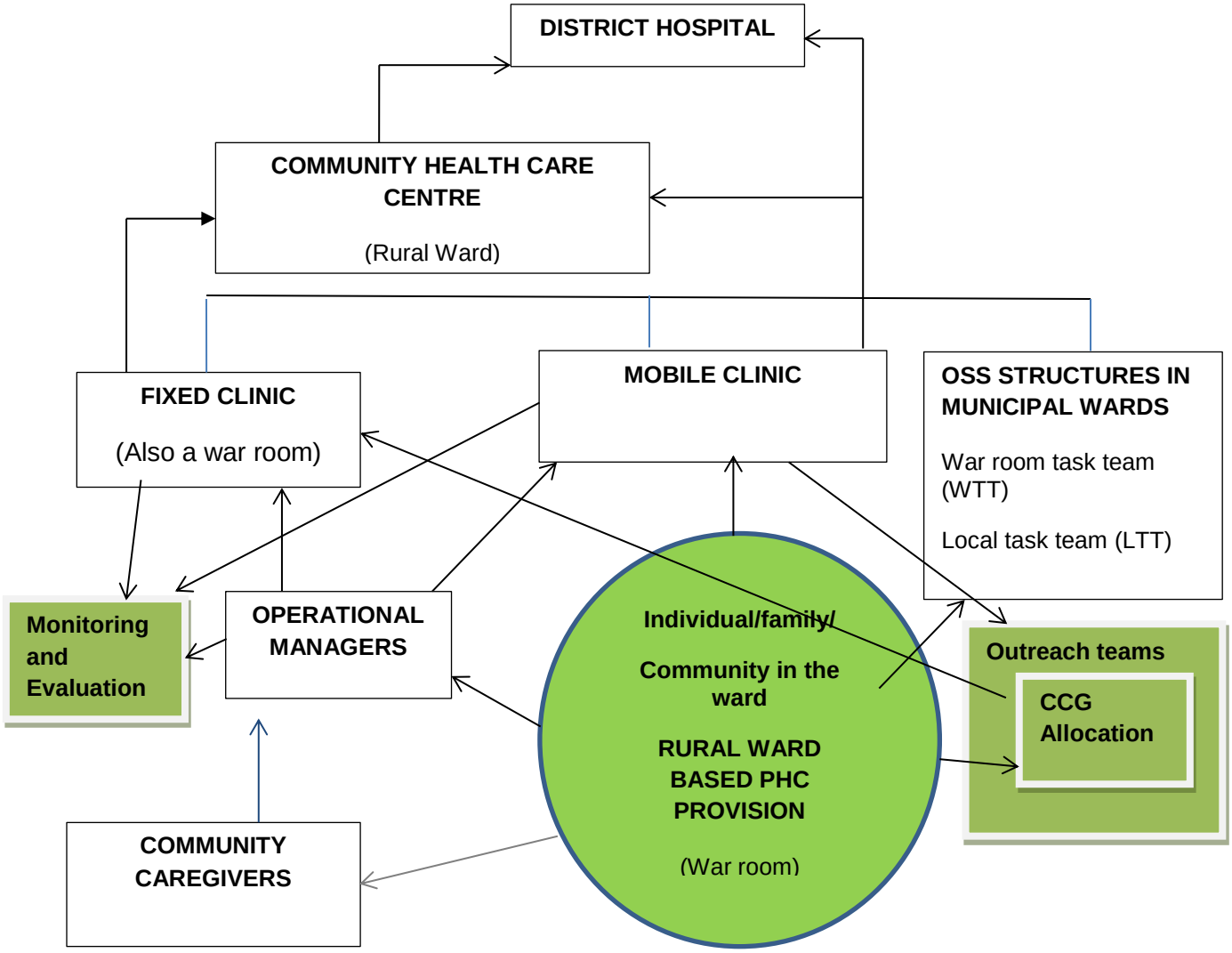
Source: Adapted from the KZN Operation Sukuma Sakhe Implementation Model (2012: 28)

Monitoring and evaluation takes place at various levels, namely ward (WTT), municipal (LTT), district municipal (DTT) and provincial (PTT) levels as indicated in the shaded area in Figure 2.6 above. Monitoring and evaluation includes ward room or ward task team reports and local task team reports. War room reports are generated and discussed with all stakeholders at the war rooms and the service delivery needs identified are referred to relevant government departments and municipalities for interventions. These reports are escalated to DTT reports which are submitted to the Office of the Premier.

2.5.6 Ward-based PHC

Within the DHS, there is a ward-based health system. To strengthen the health system, the DOH needs to undertake a number of important initiatives such as value creation in health care and the development of business models that enhance ward-based outreach teams. The purpose of the rural ward-based PHC is to satisfy the customer, namely, the communities in rural municipal wards. Such initiatives will enable a better understanding of the dynamics and complexity of the roles played by the CCGs and OMs in ward-based PHC in the UDM. The system intends changing health service delivery platforms from a curative model to one that promotes cost-effective primary healthcare (PHC) as close to the community and households as possible. This must be supported by transformation in management and supervision of facilities. The national ministry established the Office of Health Standards Compliance (OHSC) which provides oversight on the quality of health services in all health facilities, including clinics. Hence, this study focuses on ward-based PHC services. Figure 2.7 below illustrates the provision of rural ward-based PHC services in UThukela District Municipality.

Figure 2.7: Rural ward-based PHC services in Uthukela District Municipality



Source: UThukela District Operational Framework (2010:24)

2.5.6.1 The CCG programmes

Community caregivers play a pivotal role in implementing rural ward-based PHC by conducting home visits, community dialogues and behavioural change campaigns. The CCGs' responsibilities in the rural wards include household profiling, participation in PHC outreach programmes and referrals to clinics while OMs are responsible for the management functions of PHC delivery in both fixed and mobile clinics and in outreach teams. However, the number of CCGs allocated to the ward has an impact on ward coverage. It is also illustrated above that the OMs at fixed and mobile clinics are responsible for the monitoring and evaluation of rural ward

based services in the rural wards. This is done through oversight, monthly and quarterly reporting.

CCGs increase coverage and equity as low cost preventive and promotive health services are cheaper than curative health services. Moetlo, Pengpid and Peltzer (2011:6) identified the most common problems and barriers in care giving as:

- Structural problems: none or sometimes not available home-based care kits (54%), lack of resources (32%), lack of transport money (30%), and very low stipend (22%);
- Problems with the supervisor such as “lack of management skills” (40%) and “selfishness” (38%); and
- Problems with clients and community such as “patients not taking prescribed medicines regularly” (45%) and “not welcomed by patients and family members” (35%).

The United States Department of Health and Human Sciences Health Resources and Services Administration (2011:6) confirmed these challenges in a study reviewing the concepts, practice and the policy concerns of CCGs. However, shortcomings found in the studies included a re-call bias of study participants and loss of participants in cross-sectional studies. Other shortcomings included geographical distances, fieldwork access and the management of relationships.

2.5.7 The Community Care Giver models

Community Care Giver models include community level models/theories of community organization; role development theory and the best practice models for scaling up CCG programmes.

2.5.7.1 Community Level Models of Community Organisation

Models of community organisation emphasise health promotion and change in communities and community action for health.

Fawcett (2013:37) defines community organisation as a process through which community groups are helped to identify common problems; mobilise resources;

and develop and implement strategies to reach collective goals. The three models of community development include the following:

- **Locality Development** is marked by increased community participation. The community identifies and solves its own problems. Local development will be more relevant for household change agents or family champions.

- **Social Planning** involves technical expertise that guides the design and implementation of social plans. An example will be planning for a water plant to address water shortages. The shortcoming is silo planning by government departments and the municipality, resulting in the fragmentation and duplication of services. Effectiveness and efficiency problems hinder the achievement of health outcomes (Fawcett 2013: 38).

- **Social Action** entails the implementation of interventions to address community problems. Operation Sukuma Sakhe at a ward level is one example of the implementation of this model.

Community organisation leads to mobilisation and active participation of communities in matters affecting their health and wellbeing, thereby empowering them so that they develop intervention strategies to address the social determinants of health through health promotion, healthy life-styles and prevention of disease. Therefore, community organisation results in local development (Fawcett 2013: 39).
The CCG models are relevant to the study as ward-based PHC services are provided at the household and community level where individual, family or community problems are identified through profiling and services are provided at the household level or at a local clinic. Stakeholder participation at the local level enhances fast service provision in line with the President's Operation Phakisa (NDoH 2010:4). However, district municipality reports (DTT Quarterly Report 2015: 2) have indicated that household profiling is slow due to a shortage of CCGs and the challenges of ward coverage. Therefore it can be assumed that some communities cannot be reached for assessment, diagnosis and interventions.

Management of service delivery and monitoring and evaluation thereof are therefore hampered.

2.5.7.2 Role Development Theory

According to O'Brien, Squires, Bixby and Larson (2010:265), role development theory defines professional roles as a set of work responsibilities and create performance limits where no legal definition exists. Unclear roles can have a substantial impact on the resulting work, potentially causing duplication of effort, difficult work environments; and inefficient operations. Unclear role definition may affect the quality of patient care, resulting in poor outcomes. Currently task shifting allows certain interventions like giving of Vitamin A to be done by the CCGs. A pilot study has been done by Broadreach at Ugu and UThungulu District Municipalities where CCGs undergo a 10-day training course on Integrated Community Caregiver Foundation. The training covers different modules, namely maternal, child and women's health (MCWH); chronic conditions; community care and support; and the role of CCGs in OSS, thereafter they receive certificates (Akahloun 2014:4). The training is being rolled out to UDM by Health Systems Trust (HST).

The role development theory provides insight into how to create new formal roles such as CCGs and the health care system. Role development theory will also be relevant in the context of South African PHC engineering by determining roles and competencies that will enhance ward-based PHC services in the municipal wards.

2.5.7.3 Best practice models for scaling up CCG programmes

Javanparast, Heidari and Baum (2011:47) assert that best practice models have the following characteristics:

- Separation of governance and management; active incorporation of the municipal sphere of government and its structure of ward committees; and delegation of powers to community level forums to elect the management committees to manage the day to day activities of CCGs;
- The role of the provincial departmental staff is to facilitate involvement by contracting civil society rather than line managing. The intermediary role of non-governmental organisations (NGOs) and community-based

organisations (CBOs) is to support democratic community structures by offering training and financial management;

- Emphasising the importance of clear policy and adequate finance from provincial treasuries; and
- The need for sequencing and steady flow of planning, monitoring, evaluating, and resource allocation. For example, equipment - particularly the availability of transport, supplies, educational materials and other required materials.

Best practice models will guide this study on the evaluation of the ward coverage by the CCGs, the activities in the wards and how they refer clients and report. The study will also establish participation in outreach teams and the amount of resources provided for CCGs. The best practice models will also be used to evaluate the management functions of operational managers, namely planning, organising, leading and controlling at the PHC clinics.

2.5.8 Strengths and Weaknesses of the CCG models

According to O'Brien, Squires, Bixby and Larson (2010: 265); Javanparast, Heidari and Baum (2011: 47) and Fawcett (2013: 39) the CCG models discussed above have both the following strengths and weaknesses.

- **Strengths**

Different studies were conducted on Community-Based Workers (CBWs) and Community Health Workers (CHWs) based on various theories and models relevant to this cadre. In this view, numerous positive performance of CHWs (later known as CCGs) had been found, namely:

- CCGs increase accessibility to health care services;
- CCGs are recruited locally and understand the problems of the community;
- CCGs are acceptable to the community and are culture sensitive;
- Increased cost effectiveness;
- CCG commitment and motivation due to job creation and payment of stipends;
- Improvement of health outcomes e.g. immunization coverage, health promotion;

- Allocation of nurses to critical clinical issues; and
- CCGs are an extended arm for nurses.

- **Weaknesses**

Some models, namely the WHO Health Care System Framework and Health Systems Model by De Savigny and Adams could not clearly articulate definite roles of CCGs. For example, the ability to diagnose and treat illnesses was limited and the performance management systems were ineffective. The standard norm of one CCG has to visit 60 households per month (1:60) undermines adequate coverage, especially in rural areas where unclear policies (CHW versus EPWP in South Africa) in relation to the formal health care system exist (Lehman and Matwa 2008). The models that provided for the centralisation of budget caused an under-utilisation of the budget resulting in tensions between the directorates of Health Promotion and HIV/AIDS programmes.

The models and theories have created a sense of dependency of some individuals/communities with communities living on hand-outs instead of actively participating in their issues. Such models are seen as undermining the capacity of communities to make decisions on issues affecting them. With the advent of the NHI, there is an expectation from individuals that common health care problems will be addressed.

CCGs, alternatively known as CHWs, form an important part of the health care system. The United States of America (USA) Department of Health and Human Sciences Health Resources and Services Administration (2011:4) indicated that CCGs have evolved with community-based healthcare programme and have been strengthened by the PHC approach. The conception and practice of CCGs have varied enormously across countries. For instance, they are known as Village Health Workers or lay counsellors in Tanzania. The USA Department of Health and Human Sciences Health Resources and Services Administration (2011:4) identified the ‘family care giver’, ‘community care giver’ and ‘home-based care (HBC)’ concepts. However, recent reviews examined the effectiveness of CCGs and found that the scope of CCGs was limited. For example, in a case study conducted by Forrest,

Torrest, Neuwelt, Gotty and Crengle (2011:1), critical factors that influence the overall performance of CCGs were identified as their roles and functions, training programmes, career employment development and advancement, monitoring and community participation. The community caregivers received varied training in terms of amount and extent. Their training covered the basics of home-based care and the basics of health care. Some received basic counselling training. A number of those presently paid as community caregivers volunteered for a number of years, for example, for seven years, before being paid.

Many studies describe the role and functions of CCGs as being very crucial.
These included screening, assessment and referral, information and education, psychosocial support, basic home treatments, support community campaigns and schools. These roles and functions are in line with the PHC re-engineering model for RSA. CCG studies recommend matching CHWs' skills with appropriate tasks; offering adequate initial and continuous training; providing flexible work schedules; encouraging goal setting; and offering leadership opportunities as these are integral to effective programmes. CCG programmes must establish clear performance standards (including a reasonable workload), meaningful work; and opportunities for career and employment development and advancement. Providing realistic expectations of what the work entails is a significant factor in preventing CCG burnout (O'Brien, Squires, Bixby and Larson 2010:262).

The strengths identified include amongst others high respect for CCGs, more effective PHC and reaching out to underserved communities. Policy challenges in the design of CCG programmes, as well as the implementation and performance of CCGs, were also highlighted in the study. For example, some community caregivers had never visited households and supervisors were concerned about the performance management systems (Gregory and Ivers 2010:6).

2.5.9 Selection of Community Care Givers

CCG studies confirmed that CCGs were recruited from the families they served. CCGs knew the problematic health issues as well as the cultural or traditional practices of the respective communities. This increased acceptability by the

community and particularly strengthened community confidence in CCGs. The USA Department of Health and Human Sciences Resources and Services Administration (2011:12) further stated that CCGs that were recruited locally had a greater impact on creating health awareness, utilization of the service and improved health outcomes.

Previously, the KZN DOH offered stipends for CCGs, while DSD worked with the HBCs. About half of the total CCGs were paid by the DOH, while the other half was funded by NGOs. Most of these NGOs were mostly funded by the Departments of Welfare and Health. CCGs complained that they received insufficient pay for their work. These cadres were integrated in 2010 into one category called community care givers (CCGs) and these were absorbed by the DOH.

The CCGs are community-based health worker cadres who are selected, trained and work in the communities in which they live and, in turn, act as agents for health promotion, care and health development (USA Department of Health and Human Sciences Health Resources and Services Administration 2011:6). The National Department of Health (2010:51) asserts that the role of community health workers is, amongst others, to provide specified primary health care services to community members, basic counselling services, disseminate health information, carry out health promotion activities and transfer health and wellness skills to community members.

KwaZulu-Natal Department of Health reports (2010:27) indicate that KwaZulu-Natal was the only Province that had supported CCGs since the new government came into power in 1994. It was mentioned above that some CCGs were not paid but worked as volunteers – or paid according to the specialised functions in providing home-based care. Only the CCGs that were paid were interviewed, since it was assumed that they comparatively had a degree of obligation, as opposed to volunteers who are normally not under the same obligation.

Shrestha (2010: 66) in a study of the evaluation of access to PHC, showed a variation in access between villages (rural areas) and across different socio-

economic classes. There are rural wards that have no clinics and there were no CCGs. Such wards relied on a mobile clinic, if any, that came at least once a month.

In another study on funding, tasks and functions of the CHWs conducted by Alvisurez, Clopper, Felix, Gibson and Harpe (2013:16), a number of important issues were identified, namely: selection, recruitment, training, remuneration, career prospects, attrition rates and support services. These issues were covered in the questionnaire and the interview schedule. The aim was to elicit if any development since the integration of CCGs in KZN since 2010 (CHWs and HBCs).

2.5.10 Community Care Giver effectiveness

In review of literature, the issues that continue to present included the effectiveness of CCGs. CCGs are very effective because they form the extended arm of professional nurses who cannot always leave facilities to conduct household visits. PHC is about preventive and promotive health. The CCGs do household assessments (profile) in order to identify problems for interventions. According to Shakir (2011: 3), specific characteristics of the success of the CCG programme in various countries like Iran, Ghana, Brazil, India and Thailand are health education (e.g. how to lead a healthy life to prevent diseases); family planning; early antenatal attendance; immunizations; HIV and AIDS; TB control; and when to go to the clinic. However, the literature review suggested areas that needed further improvement, such as integration of chronic care into the programme, increasing community mobilisation, increasing CCG coverage and equity.

Gregory and Louise (2010:7) emphasised health systems strengthening by district municipalities in order to improve health outcomes. Output number one of the NSDA in the DOH is to strengthen health systems effectiveness and is reflected as a Key Result Area (KRA) of every manager in the district. Various issues raised by Gregory and Louise (2010:7) are described as follows:

- Selection of CCGs should take place at the community level as communities have confidence when served by a local CCG who knows the local practices and challenges;

- Limited scope of CCGs inhibits wider interventions at household level as they cannot work independently in all spheres;
- Training provided to CCGs is also limited to health promotion, education, immunisation and basic screening;
- Career paths and employment opportunities;
- Contracting and stipend issues;
- Integrated basic health packages at the household level;
- Management of CCGs is also a challenge. The operational managers mostly distance themselves from this activity and claim that they spend about 80% of their time providing clinical care instead of performing administration and management functions due to a shortage of clinical nurse practitioners at the clinics;
- Focus on monitoring and evaluation supported by mobile technology is also not possible due to network problems in rural areas. SMS networks are used in other countries like Malawi and recently started for MomConnect in South Africa. The KZN premier has contracted a service provider known as Siyaleader to train CCGs on the SMS network in order fasttrack interventions and referrals; and
- Integration with PHC systems and bridging the gap between health facilities and households.

These issues will be better understood and this study will also take note of further developments on the issues raised as they are critical in the provision of ward- based PHC in rural wards.

Each CCG is responsible for 60 households. This is below the norm that each CCG is responsible for 80 to 100 households in rural areas; and between 100 to 150 households in urban areas (Department of Health, 2010:32). Community Care Givers earn R1500 per month. One CCG in an urban area earns R1400 a month. A home-based caregiver in an urban area earns R500 per month, while another in a rural area earns R300 for working three hours a day, five days a week. In comparison, over this time period the minimum wage for domestic workers in rural areas ranged between R700 and approximately R755 (Department of Labour,

2010), while the minimum wage for agricultural work – the chief form of employment in rural areas – was about R1138.71 per month (Department of Labour, 2010). Apparently, CCGs were paid approximately double the mentioned wages.

A case study conducted by Torrest, Neuwelt, Gotty and Crengle (2011:1) focused on CCGs and other staff members two of whom were the managers. Two focus groups were used where one group comprised of CCGs and the other comprised of the other staff members. Whilst the CCGs were viewed as important bridges between services, agencies and communities, there were challenges facing CCGs. These included inadequate resources and budget cuts though CCGs were critical in the person's health journey. Provision of PHC is also subject to budget cuts which hinder the expansion of ward-based PHC services. Finances, human resources, equipment, physical facilities and other supplies are core inputs in order to deliver services. The systems and the logic model indicated how these contribute towards the achievement of outcomes and impacts. The lessons learnt from the case study will guide the study in assessing the effectiveness of CCGs and identifying challenges faced by CCGs whilst rendering rural-based PHC services in rural wards. The findings of the study will guide the research in the formulation of recommendations and with the development of a new model of evaluation of the management of rural-based PHC services in the district municipality.

2.6 PHC Re-engineering

Primary Health Care re-engineering was triggered by key developments from the Alma Alta declaration in 1978, namely a revitalised PHC strategy for South Africa in 2008 accompanied by a series of policy reforms with very little health outcomes. In order to learn lessons from other countries the Minister and MECs visited Brazil in 2010 and returned with a vision for the re-engineering of PHC. Brazil was able to improve health outcomes by, inter alia, expanding the role of community agents working in teams with health professionals in designated catchment areas (La Forgia 2009). Upon returning home, the Minister established a small team to develop a South African model to strengthen PHC. This team produced the first narrative document and presentation to an extended National Health Committee (NHC) meeting (Barron 2010: 1).

PHC re-engineering was well received in 2010 although it was in its early stages of implementation. The functionality of the District Health System and the delivery of PHC services were revisited during the analysis of health outcomes as an endeavour to reflect the status of health services in South Africa (Pillay 2012: 2). District management team remain responsible and accountable for health services in the district. Each clinic will have a PHC outreach team called family health teams which will spend some time in the community and some of its time in the clinic. The model depicts that each community outreach team will be responsible for around 1500 households with approximately 6000 people.

2.7 Monitoring and evaluation

The concept “evaluation” is defined by the World Bank (2014:1) as “the process of determining the worth or significance of a development activity, policy or programme to determine the relevance of objectives, the efficacy of design and implementation, the efficiency or resource use, and the sustainability of results as the systematic and objective assessment of an ongoing or completed project, programme or policy including its design, implementation and results”. The aim of evaluation is to determine the fulfilment and relevance of objectives; development efficiencies; effectiveness; impact; and sustainability. An evaluation should provide accurate information that enables informed decision making and clarifies the available options for the programme. Kettner (2008:182) suggested five types of evaluation which are briefly described below:

- **Effort evaluation** includes both inputs and activities and focuses on the characteristics of the participants and the quantity of activity that occurs. The clinics are the responsibility of the hospital management. The Chief Executive Officers (CEOs) in hospitals must ensure adequate staffing and the availability of basic equipment and supplies, as well as the effective implementation of referral patterns at the clinics so that quality health services are provided closer to the patient at an affordable cost.

- **Efficiency evaluation** reviews the cost of producing a unit of service. Clinics give little attention to preventive and promotive health. The services provided are mainly curative in nature and put additional strain on the already limited resources. The district has a high burden of disease. There is an increasing need to put more patients on chronic medication for conditions such as hypertension, diabetes and asthma (UThukela District Quarterly report 2013: 21).

- **Outcome evaluation** assesses the extent to which the set outcome objectives have been achieved. The district cannot achieve the health indicators and health outcomes. Performance reviews indicate that the clinics are not well supported with resources by hospitals and utilization rate is therefore low (2.2 instead of the national norm of 2.8).

- **Impact evaluation** reviews the extent to which the original purpose of the intervention has been achieved. The district's purpose is to ensure optimal health status for residents of the ward.

- **Cost-effectiveness** evaluation determines the cost of achieving results. PHC should be affordable and cost-effective. Resources are put in at a high cost but with minimal results. The measurement of cost effectiveness would be optimisation of resources, for instance achieving a PHC utilisation rate of 3 with lesser costs of R356.00 (DHER report 2013/14: 84). Currently the district has a PHC utilization rate of 2.4 (below the provincial target) due to the reluctance of patients to visit clinics due to the long distances some patients have to pay (about R80 for taxis to get to a clinic for treatment). Whilst waiting for about four to six hours to be seen by the nurse, the patients have to have a lunch box. The ward-based PHC approach will counteract this problem as patients will be visited at home or at a community gathering, that is, more closer to where they live.

2.7.1 Monitoring and Evaluation of PHC services at the ward level

2.7.1.1 Definition of Monitoring and Evaluation

Amizaki, Hu, Li and Shim (2011:4) define monitoring as “a continuing function that uses the systematic collection of data on specified indicators to provide management and the main stakeholders of an ongoing development intervention with indications of the extent of progress and achievement of objectives and progress in the use of allocated funds and evaluation as the process of determining the worth or significance of a development activity, policy or programme to determine the relevance of objectives, the efficacy of design and implementation, the efficiency of resource use, and the sustainability of results”.

Taylor-Powell and Henert (2008: 4) define evaluation as the systematic collection of information about activities, characteristics and outcomes of programmes used to make judgments, improve effectiveness, add to knowledge, and/or inform decisions about programmes in order to improve them; and ensure accountability for positive and equitable results and resources invested. In terms of PHC service delivery, managers should make informed decisions and be held accountable to the organization and the public. Evaluation results will therefore inform decision-making and afford accountability to PHC managers (White, Sinha and Flanagan 2006: 2).

Formative evaluation aims at improving project implementation through the early identification of gaps and issues pertinent to the identified interventions. It will also help in articulating and modifying project objectives as well as assessing progress against activities and outcome. This would be done monthly and quarterly. It will focus mainly on process indicators as they are more appropriate to measure progress on day-to-day operations. There also be focus on programme output indicators as they are easy to track over. The summative evaluation will focus on the impact and would be done annually.

2.7.1.2 The Logic Model

According to Roduner, Schläppi, Agridea, Egli and Zurich (2008:8) the logic model refers to the integrative framework for monitoring and evaluation. Govender (2011:

92) listed the following five components as interrelated subsystems within the logic model:

- **Inputs** refer to all the resources that contribute to the production and delivery of outputs: Inputs are "what we use to do the work", which could include finances, personnel, equipment and buildings.
- **Activities:** The processes or actions that use a range of inputs to produce the desired outputs and, ultimately, outcomes. In essence, activities describe "what we do".
- **Outputs** are the final products, or goods and services produced for delivery. The word ‘outputs’ may be defined as "what we produce or deliver", results or changes for individuals, groups, communities, organizations or systems.
- **Outcomes** are the medium-term results for specific beneficiaries that are the consequence of achieving specific outputs. Outcomes should relate clearly to an institution's strategic goals and objectives as set out in its plans. Outcomes are "what we wish to achieve".
- **Impacts:** The results of achieving specific outcomes, such as reducing poverty and creating jobs (Govender 2011: 92).

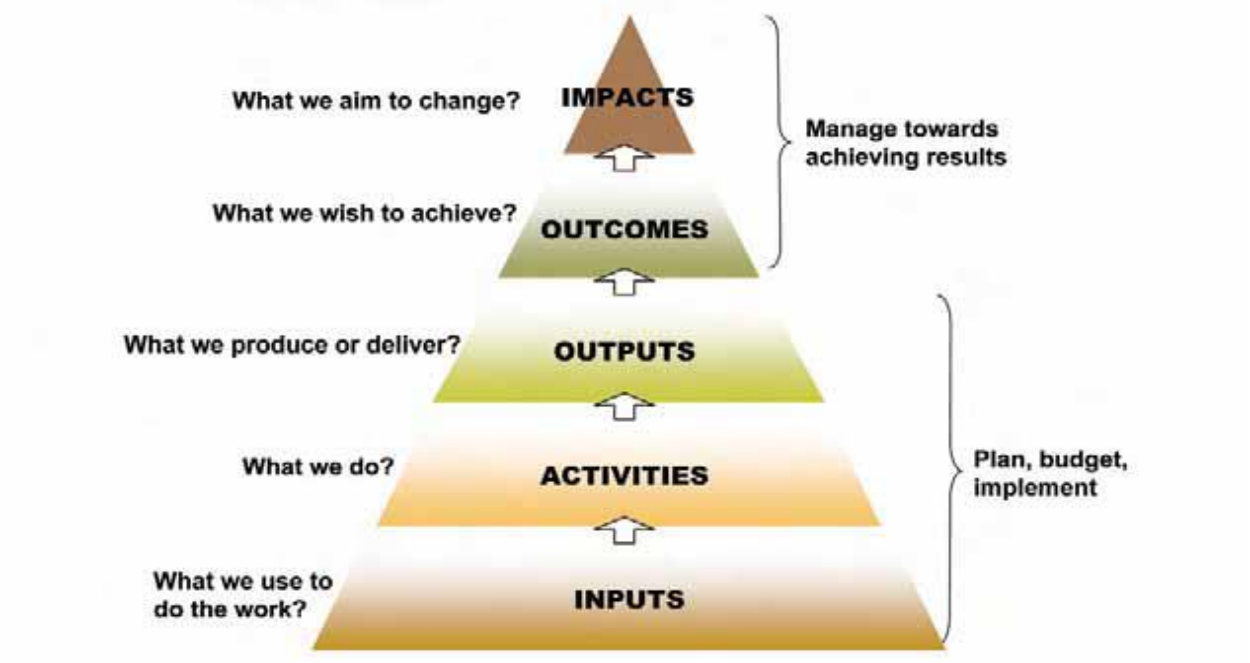
The logic model will guide the design and analysis of the evaluation of the ward-based PHC using quantitative methods of the study. Applying the model, the researcher will identify the key elements of the study and articulate the relationships of these elements. For example, how CCGs are selected and placed in the wards; what activities they provide at the ward or household level and the outputs for individuals and communities will be identified and articulated. Below is a depiction of the components of the logic model:

Primary health care requires intersectoral collaboration. Intersectoral collaboration needs coordination of the ward structures and sub-committees at local level, for example, ward committees, ward forums and other interest groups. Unfortunately there is ineffective coordination and reporting structures are also ineffective. District reports reveal that that there are CCGs that continue to get stipends even if they do not work. For instance, some CCGs were reported to have relocated or work elsewhere or are at the tertiary institutions and some have died. The districts

incurred irregular expenditure and thus audit queries. Pillay (2009: 2) asserted that there were challenges with the models, namely a lack of coordination, the lack of training, a lack of supervision and no evidence of impact.

Figure 2.8 below illustrates the Logical framework.

Figure 2.8: Logical framework indicating key performance information concepts



Source: National Treasury – Framework for Managing Programme Performance Information (2007: 6).

The study aims at the evaluation of the management of rural ward-based PHC in UThukela District and the Logic Model will guide the study. For example, the study looks at resources and monitoring systems that are available for OMs to use in order to provide rural ward-based PHC. All efforts to provide a rural ward-based PHC should have an impact on the communities' lives and must satisfy the customers. The Logic Model will be discussed further in chapter three. The models and theories discussed above focus on community-based services with emphasis on preventive and promotive health in rural areas in line with the District Health System. The models and theories will therefore guide the evaluation of PHC at a

ward level and also help to develop *a* participatory model that is more community-driven in assessing and solving its own health and social problems.

Table 2.1: Illustration of relations between functions and objectives of a health system.

Functions the system performs		**Objectives of the system**	
Stewardship (oversight)		Responsiveness (to people's non-medical expectations)	
Creating resources (investment and training)	Delivering services		Health
Financing (collecting, pooling and purchasing)		Fair (financial) contribution	

Source: Adapted from WHO Report (2008:25)

The WHO Health Care System Framework will form a tool for monitoring and evaluation of Sub-Saharan and International PHC ward-based PHC services (WHO Report 2008:7). Measuring goal achievement will cover the overall level of health; the distribution of health services in the population; the overall level of responsiveness; the distribution of responsiveness; and the distribution of financial contribution. Success would refer to more effective control of diseases through high performing systems.

In line with the above, the vision of the KZN Department of Health is to achieve optimal health status for all persons in KwaZulu-Natal while the mission is to develop a sustainable, coordinated, integrated and comprehensive health system at all levels based on the primary health care approach through the District Health System. There are huge differences in the context in which primary health care has

developed in international and Sub-Saharan Africa countries and these will be evaluated in chapter three of the study. However, some common features prevail in the implementation of the health care, especially primary healthcare, based approach for the challenges of our changing world. Therefore, for each system, it is important to monitor the impact on equity (access, reducing social inequalities in health), quality (both process and outcome) and morbidity and mortality. Hence, the study will be evaluating these.

2.8 Conclusion

The findings from the literature review reveal a lack of information on ward-based PHC since PHC was only viewed as community based. The health department has recently begun to align its services to municipal wards. The KwaZulu-Natal DOH through Operation Sukuma Sakhe became the first province to implement in 2009. Therefore, there are limited ward-based studies. The integration of CCGs which took place in 2010 made it possible to allocate them according to municipal wards and households.

Significant studies focused on the role of CCGs in community-based PHC. The arguments raised were very convincing. These will be considered in detail in chapter four which discusses the methods of the study. The following chapter will discuss Evaluation of International and Sub-Saharan Africa Ward-Based PHC Services.

CHAPTER 3: INTERNATIONAL AND SUB-SAHARAN AFRICA WARD-BASED PHC SERVICES

3.1 Introduction

Chapter three will present the good practices in India, Brazil, Thailand, Cuba and Sub-Saharan Africa, namely Nigeria, Rwanda, Malawi and Haiti. The chapter will also discuss lessons for South Africa from these countries' practices. Primary health care forms an integral part of the healthcare system in addressing socio-economic and disparity challenges. Community caregivers and operational managers form part of the health system and are known as community based workers.

PHC is the foundation of any health system and it is the first level of contact for individuals, the family and community with the national health system (as based upon the Alma Ata declaration). PHC brings healthcare as close as possible to communities and also constitutes the first element of a continuing health care process. Priorities of PHC include addressing the community's health problems and providing promotive, preventive, curative and rehabilitative services.

3.2 International primary health care services

The chapter will also evaluate PHC services in countries like India, Brazil, Thailand and Cuba.

3.2.1 Primary health care services in India

According to Debgupta (2010) India is the seventh largest country in the world and the second most populous country after China. A large part of its population lives on less than two dollars a day. Primary Health Centres are rapidly being upgraded under the national rural health mission. There are currently 23109 PHCs in India.The rural health care system in India was developed as a three tier system, shown in Table 3.1 below and comprising the following:

- The Community Health Centre (CHC) - A 30 bed hospital/referral unit for 4 PHCs with specialist services.
- The Primary Health Care Centre (PHC) - A referral unit for 6 (4-6 bed) sub centres staffed by a medical officer in charge and 14 paramedics.

- The Sub Centre-The most peripheral point of contact between the primary health care system and the community, staffed by 1 Health Worker-Female (HM-F)/Auxiliary Nurse Midwife (ANM) and 1 Health Worker-Male (HW-M).

Table 3.1: The Health System Infrastructure in India

<table>
<tr><td rowspan="4"></td><td>NATIONAL LEVEL
Ministry of Health and Family Welfare</td><td rowspan="4"></td></tr>
<tr><td>STATE & Union Territories (UTs)
Department of Health and Family Welfare</td></tr>
<tr><td>Apex Hospital</td></tr>
<tr><td>DISTRICTS
District Hospital</td></tr>
<tr><td colspan="2">RURAL AREAS</td><td>URBAN AREAS</td></tr>
<tr><td colspan="2">Community Health Centre</td><td>Hospital</td></tr>
<tr><td colspan="2">Primary Health Centre</td><td>Dispensary</td></tr>
<tr><td colspan="2">Sub-centre</td><td></td></tr>
<tr><td colspan="2">Village Health Guides and trained Dias</td><td></td></tr>
</table>

Source: Rajasthan Directorate of Health and Medical Services (2010:587).

Kumar (2012:10) asserts that the neglect of the rural healthcare system is largely due to a lack of specialist doctors in the rural sector. Even the local villagers who study medicine prefer to work in the city rather than going back and working in their own villages. The need arose to establish a much more achievable and simpler health system which can ensure good healthcare for the villagers. The rural health system shifted focus to the young graduates from medical school. The whole system was decentralised to a two-step system according to the population of the villages with about 5 000 to 10 000 people.

The establishment of small clinics is required to take care of small diseases and help the women during their pregnancy months. The focus should also be on diseases like malaria and leprosy. These clinics can organize camps in different small villages. The next type of organisation should be small hospitals which include populations above 10 000 people. These are specialist hospitals where more complex diseases can be cured and where villagers can be admitted. There was a specialist visiting from the city to take care of the more complicated cases and performing complicated operations but the need is also to get doctors and paying them a good salary.

The country had difficulty in producing young medical school graduates. The need is also to improve the participation of the private sector in the rural areas, which can attract new blood. One of the biggest challenges of these small hospitals would be to take the load off the district and apex hospitals, which usually run out of beds for patients. The small hospitals should be able to reduce the work of the district hospitals by 30%.

3.2.1.1 Who provides care in India?

In India, PHC forms a basic part of the health care system. An adequately qualified Medical Officer (MBBS) is appointed to run the Primary Health Centres. He acts as the primary administrator for the PHC in addition to the provision of diagnostic and curative services. There are primary field workers, known as Accredited Social Health Activists (ASHA) who provides outreach services. They are also referred to as Village Health Nurses (VHNs), depending on the Indian state where the PHC is located. The VHNs provide service at the point of care, often in the patient's home. If additional diagnostic testing or clinical intervention is required, the patient is transported to the PHC to be assessed by the Medical Officer (Scott and Shankar 2010:2).

A case study of a CHW project in rural Uttarakhand in the North of India (Scott and Shanker 2010:1) identified that India was implementing two programmes, namely, the Accredited Social Health Activist (ASHA) community health worker programme and the less-educated women as village health workers programme. The village health workers are then trained for health promotion, provision of curative services,

increasing utilisation of health facilities, facilitating cultural mediation between the community and the health workers as well as facilitating critical reflection and dialogues in social health matters.

Cultural mediation is also required because, for example; rural communities believe that the baby should not leave home until he/she is three months old. It means that the child will not receive newborn care, immunisations, growth monitoring and other child health services. The CHW programme was intended to address shortages of health resources in poor rural areas. The study identified hindrances to the successes of the ASHA community health worker programme as the outcome-based remuneration structure; poor institutional support; the rigid hierarchical structure of the health system; and a dearth of participation at the community level. The obstacles prevented CHWs in fulfilling their roles and increasing quantitative health outcomes and cultural mediation.

3.2.1.2 Non-government Community Health Workers in India

In rural India, almost half of newborn infants encounter high risk morbidity, commonly due to infection. The intervention was complex and involved training traditional birth attendants, health education and a new cadre of supervised village health workers who visited newborn infants at home, identified warning signs and managed sepsis with injectable and oral antibiotics. According to Mann, Eble, Frost and Premkumar (2010:728) monitoring and evaluation of activities indicated reduced neonatal mortality rates of 30% in Nepal and 52% in Pradesh, respectively.

The programme raised a number of questions since it was implemented with a history of work in the area. Could it be replicated in a less intensive context such as government primary health care? How could the village health worker be absorbed into the existing health system? Would chains of support and supervision be strong enough to scale the initiative?

Similar experiences are found in South Africa with regard to rural health services. The country has only eight medical schools and has therefore formed partnerships with countries like Cuba in order to increase the number of doctors. KZN has sent the highest number where UDM has sent seventy-eight students for the past two years to study medicine in Cuba because the target of a doctor visiting clinics at

least once a week cannot be achieved due to a lack of doctors. KZN has increased the number of community health centres to decongest the district hospitals where one CHC has been built in UThukela District Municipality to serve Indaka Local Municipality and sections of Ladysmith Local Municipality where there is no district hospital. Therefore, district hospitals are faced with an influx of PHC patients who could have been attended to at the clinic or community level. Monitoring and evaluation reports, namely district quarterly and district health expenditure review (DHER) reports, indicated a high number of self-referrals at the district and regional hospital amounting to more than a R46 million rand expenditure at the regional hospital.

3.2.2 Primary health care services in Brazil

Guanais and Macinko (2009: 1127) assert that since the Alma Ata Declaration, some countries (such as Brazil and Cuba) have successfully implemented the PHC approach to deliver health services, whilst others (such as Zambia and South Africa) continue to battle with challenges that impede progress in this regard. Healthcare is a constitutional right in Brazil where the government and private institutions provide health care. The Brazilian health care system is known as the Unified Health System (SUS) and PHC is the responsibility of the federal government and is universal and free to all. According to Magawa (2012:11), Brazil had been experiencing health problems, namely:

- Child mortality;
- Motherhood mortality;
- Mortality by non-transmissible illness due to heart and circulatory diseases;
- Mortality due other causes, like motor vehicle accidents, violence and suicide. For example, 71.7 deaths per 100 000 inhabitants; and
- Malaria cases were about 40%, of which 99% was in the Legal Regional Amazon.

The above negative health outcomes prompted Brazil to create a health system that will seamlessly address these health problems. The following discussions present the country's turnaround strategies in order to address the negative health outcomes.

3.2.2.1 Health Sector Reforms

According to Singh and Sullivan (2012:25), the programme started in the state of Ceara in 1987 as an emergency action and was known as the Health Agents Initiative which employed 6,000 villagers to extend health services to households under the supervision of nurses. The emergency action became a huge success and in 1991 was adopted by the Brazilian Ministry of Health as the "Community Health Workers Program." Health Agents reside within the community where they work and are selected in a public process with strong community engagement. They have a minimum of 8 years of schooling. Each Health Agent is responsible for 750 individuals and 150 households in the area. The Brazilian Federal Government shifted the administration of the health system to the municipal government. Policy reforms aimed to improve infant mortality. Strengthening of primary health services involved the introduction of the Family Health Program which used teams of physicians, nurses and community health workers. These were known as community health agents. The local infrastructure of clinics or ambulatories provided space for the nurses and community health agents, though most services are provided during home visits.

3.2.2.2 Key Feature: Primary Health Care System Integration and successes

In Brazil, the Family Health Program was established and comprised of Health Agents integrated with teams of physicians, dentists, nurses, dental assistants and nursing technicians, thereby integrating community-based health workers into the primary health system. Health Agents work under the supervision of nurses and physicians and are trained by nurses at the nearest clinic with assistance from staff at the state health secretariat, thereby strengthening the linkage between the family health team and the community. The primary health care teams work together to execute priorities as determined by the local municipality in line with national and state priorities.

Baratieri (2013:144), in a study on the Evaluation of PHC in Brazil, revealed the positive impact of the Family Health Strategy (FHS). The following was the impact of the health sector reforms:

- Life Expectancy increased from 69.66 years in 1998 to 74.6 years in 2012 due to a decline in mortality at an early age. However, it needed to further improve to catch up with China which is currently at 81%;
- Infant mortality also declined from 50 per thousand live births in 1990 and 29.2 per thousand live births in 2002 to 14 per thousand live births in 2012;
- Under one year deaths were 18 per thousand per live births, that is, a decline of 67%;
- Malnutrition declined by 77%; and
- Diabetes and stroke decreased by 25%.

The health teams showed high level of commitment and motivation which led to the improved health of citizens.

Despite the above successes, Brazil experienced challenges with the consolidation of PHC due to political-institutional dimensions; lack of social participation; organization of PHC; professional devaluation; qualification of PHC; and no standard or control and evaluation of PHC. Brazil also experiences a lack of quality of care and a lack of integration of PHC with secondary and tertiary services. Another weakness was that the Family Health Programme (FHP) was slowly implemented in urban centres due to the high utilization of private health care as middle class people were mainly in urban areas.

South Africa could learn from the challenges when transforming its health care system. The three streams of PHC re-engineering, namely, the WBOTs, the DCSTs and the GP contracting for clinics were adopted from the Brazilian health care models. The study will assess the level of CCG participation in the WBOTs, such as the family health, roving and school health teams.

3.2.3 Primary health care services in Thailand

Since 1977 the Ministry of Public Health in Thailand started primary health care, which was initially implemented on the national socio-economic development plan. Thereafter, it was aligned to Alma Ata in 1978 which focused on preventive programmes against communicable diseases and health promotion. Issues of food supply, water and sanitation, as well as maternal and child care, became a priority. A study by Srivanichakorn, Richter and Theptein (2011:8) revealed that ,since then,

primary health care in Thailand has over 1 million village health volunteers who work for health education and basic treatments as well as family planning, maternal and child healthcare, including controlling local community diseases such as malaria, diarrhoea and dengue haemorrhagic fever. Long life expectancy of 69.5 years for males and 73.3 years for females and the number of household impoverished by medical expenses decreased from 280,000 household in 2000 to 88,000 in 2008. Thailand is therefore amongst the leaders in the world health.

The district health system, through the primary health care system, in Thailand has been progressing and is successful. According to Patchranarumol, Tangcharoensathien, Limwattananon, Panichkraingkrai, Pachanee, Poungkantha, Gilson and Mills (2012:195), one of the key messages raised was that Thailand has outperformed many counties in improving health outcomes at low per capita health spending.

Health care delivery was mainly conducted by nurses and public health workers in the rural areas in the form of outreach programmes to increase access to health care services to the poor. According to Patchranarumol et al (2012:203), Thailand had achieved MDG number four (child health) and five (maternal health) by early 2000 already and at low per capita health spending (4.3% of GDP in 2009). Achievements were made by addressing the nine leading causes of under-5 mortality through health promotion services, preventive services and other community-based services, namely school health services and home visits.

Achievements were also made through royal health projects provided by the Royal Family which indicated that health was a responsibility for everybody in Thailand. The leadership, technocrats and medical doctors were very influential in improving the health of poor rural communities through policy reforms in the country's health system development. The combined efforts resulted in economic growth, poverty reduction and high level of female literacy.

The successes of Thailand's Universal Coverage Scheme (UCS) included increased investment in PHC which increased technical quality and improved coordination between service providers at the district level. Other achievements

were the containment of costs and increased efficiency (Thailand's UCS Synthesis Report 2012:75).

However, the challenges for Thailand's primary health care would be the cooperation of local communities, the empowerment of the health network system, and the improvement of the individual health care for all people to fit into the era of globalisation. Therefore, implementation of primary health care under the health security local fund can be applied at village and community levels, resulting in the protection of public spending on health and the introduction of universal coverage, thereby improving health expenditure trends in Thailand (Patchranarumol et al., 2012:216).

- **Management of CCGs in Thailand**

In Thailand, CCGs (known as Village Workers) might be part-time volunteers or those that receive remuneration. These people are based in a local clinic and are responsible for community health programmes. CCGs are part of the health system and earn a wage. The ratios of CCGs to patients are, however, low. For example, the ratio is about 1:20 for part-time volunteers, with similar supervision ratios.

The Managers at the clinics are responsible for the management of CCGs. Clinic managers are responsible for the training, supervision and incentives for community workers as these are critical for the successful implementation of health programmes. Thailand has about 600,000 CCGs (village workers) trained and this reflects about one (1) percent of the population. However, like in the other countries discussed above, inadequate training and supervisory support of CCGs are challenges in Thailand.

South Africa is still experiencing a burden of diseases. Maternal and child morbidity and mortality are still high despite the latest initiatives like the Campaign on Acceleration of Reduction of Maternal Mortality in Africa (CARMMA) and Phila Mntwana centres. Currently Uthukela District Municipality has 205 per 100 000 maternal deaths and 5 per 1000 child deaths. These are very high as the provincial target should be at 133 per 100 000 and 4.7 per 1000 respectively. The district is

failing to attract doctors as district clinical specialists for family physician, obstetrics and gynaecology, paediatrician and anaesthetist (District Report 2014:73).

3.2.4 Primary health care services in Cuba

In Cuba, primary health care is provided in clinics (consultorios*),* secondary care in specialty clinics (policlinicos) and tertiary care is provided in hospitals and medical institutes (hospitales and institutos). Family physicians are allocated with nurses Access is increased by letting the family physician and nurse live in housing units adjacent to their clinics and are integrated into the communities they serve.

Macinko, Starfield and Erinosho (2010:156) asserts that Cuba is implementing a universal PHC programme which involves family health physicians and nurses to provide universal, comprehensive and integrated care geographically with the main focus on families. The team serves about 600 patients and 150 families. In the mornings, family physicians attend to patients in their consultorios (Clinics) and in the afternoon do home visits to patients with acute care needs, rehabilitation of chronic conditions and primary prevention.

According to the United Nations Human Development Report (2013:230), Cuba ranks high in metrics of health and education, with a high Human Development Index of 0.780 as of 2013. In Cuba, life expectancy is 78 years which is the same as that of the United States and it also has a lower maternal mortality rate when compared to other countries in the region. Badore (2013:58), in a paper published in the International Journal of Epidemiology stated that Cuba has eliminated several common diseases including diphtheria, measles, pertussis, rubella and mumps. There is a need to discuss the contributing factors to Cuba's success. Below, a few aspects of the Cuban health care system that South Africans should adopt are described.

3.2.4.1 Community-oriented primary care (COPC)

Community-oriented primary care (COPC) is viewed as the system approach to health care focusing on epidemiology, preventive medicine and health promotion. Universal care and good access to care are two factors that contribute to the success of Cuba’s health care system. According to Badore (2013:2), the majority

of care is provided by neighborhood clinics called consultorios. One doctor would care for about 120 to 160 families, and medical records are organised around families putting greater emphasis on communities rather than viewing each patient as an isolated individual. Doctors see patients at the clinic in the morning and make house calls in the afternoons.

Family physicians care for patients within the context of family and community. The family is responsible for organising medical records. Health statistics are recorded and reviewed on a regular basis. Badore (2013: 3) viewed Cuban doctors as doing a good job of ensuring that patients are getting appropriate care as they were spending half of the day out in the community.

PHC is law (policy) in Cuba and the foundation upon which the health system is built. It is not viewed as one of the many integrated approaches in the delivery of health services but as the vehicle through which all health systems are run. The Cuban PHC system is also driven by community initiatives where communities are involved in the diagnosis of their health problems and identify their health priorities. Together with government, representatives develop strategies and action plans to address the community health diagnosis priorities.

Cuba has sustained steady progress attributed to its commitment to adopting a comprehensive PHC approach. Cuba’s population indicators are similar to those of developed nations that have comparatively larger budgets. For example, life expectancy is 77 years and infant mortality is 7.7 per 1,000 live births, which puts Cuba amongst the twenty five (countries worldwide with the lowest infant mortality rates (40% reduction), control of cardiovascular diseases and reduced admissions to hospitals.

Implementation of the Cuban PHC system resulted in the creation of primary care medical homes with the intention to focus health care on successful outcomes and the creation of healthier people. Doctors, nurses and technicians have daily meetings and are working more closely together to coordinate each patient's care Badore (2013: 3).

3.3 Evaluation of primary health care services in Sub-Saharan Africa

The World Bank Report (2011:2), indicates that only four African countries, namely Cape Verde, Ethiopia, Ghana and Malawi were likely to achieve the Millennium Development Goals (MDGs) by 2015. Below, is a brief discussion of the economic, social and health factors that impact on the health of the people.

- **Economic Issues**

According to a study by Frost and Reich (2010:4) poor populations had difficulty in accessing health technologies including medicines, due to non- responsive health system and high prices in the private sector. Health Sector reforms through health systems strengthening brought about successes. The World Bank Report (2011:2) also revealed that in 2010, foreign direct investment flows to Africa surpassed those received by India, where the international capital inflow increased to 4.6 per cent of Gross Domestic Product. The report asserts that health department spending was high due to hospital-centred care as opposed to cheap preventive and promotive health provided through ward-based PHC. However, the World Bank report noted that the business climate had improved with three countries in the region. Cape Verde, Rwanda and Zambia were amongst the 10 economies in the world that most improved the ease of doing business in 2010.

In view of the above discussion, district municipalities should be able to take on responsibility for managing public funds in line with their capacity, thereby strengthening their ability to manage funds and monitor basic contracts with PHC service providers and related support service providers.

- **Social Issues**

The primary school completion rate was increasing faster and the percentage of people living in extreme poverty decreased. Literacy enables people to understand issues relating to their health and to come up with intervention strategies, like making sound decisions about their reproductive health.

- **Health Issues**

The report observed that conditions were improving in Africa as maternal mortality had declined by 26 per cent between 1990 and 2009. Child mortality rates were also decreasing and the rate of HIV infection was stabilising. However, there were serious development challenges in Africa. For instance, about 645 pregnant women were dying during pregnancy and childbirth per 100,000 live births. These health outcomes are negative, since no pregnant woman should die whilst delivering a baby.

Singh and Sullivan (2012:80) assert that most governments in Sub-Saharan Africa have moved or are moving towards the delivery of health services at the household and community levels, and some have formalised policy directives on the use of CHWs to extend primary health care to households.

3.3.1 Evaluation of primary health care services in Nigeria

3.3.1.1 Establishing a sustainable Ward Health System in Nigeria

According to Abosede, Campbell, Olufunlayo and Sholeye (2012: 5), in establishing a sustainable Ward Health System (WHS), Nigeria experienced the health care challenges which made it difficult to reach positive health outcomes. The health system undertook several reforms. In terms of the “Banöme” system, each village was allocated two Community Care Givers (CCGs) who provided the directly observed treatment (DOT) to patients with Tuberculosis. Thereafter, their responsibility increased to scope to provide PHC and maternal health services. The other programme was known as the Partners in Health (PIH) which intended to improve health outcomes working with the CCGs and supporting them financially. The two programmes were later integrated into the Nigerian Community Health Program (CHP). CCGs are a link between the community and a Health Centre. As in South Africa, CCGs work with local leaders such as village headmen. The CCGs monthly home visits; give education on health prevention and promotion; conduct case finding; follow-up on patients; and provide DOT support to the HIV infected (Partners in Health 2011:5). More details are provided in Chapter two.

CCGs also form a link between communities, clinics and hospital settings. They conduct home visits, assessments, health education, screen patients and refer them to clinics or hospitals. On review, the programme increased the uptake in medical services; promoted adherence to HIV and TB treatment; and resulted in long-term improved health outcomes.

Abosede et al (2012:5), further identified that Nigeria experienced the following health care challenges which made it difficult to reach positive health outcomes;

- A fragmented health system with multiple players;
- Lack of trust in lower levels of care by the populace;
- Inequitable and inadequate distribution of health personnel;
- Poor communication and transport facilities;
- Top-down minimal community involvement;
- Political/Constitutional impediments; and
- Stand-alone and poor linkage to other tiers of the health system.

The Nigerian system had major problems of, among others, inadequate community mobilisation and participation, inadequate orientation of the health manpower, and inequitable distribution of resources. There was therefore a need to transform the health system.

3.3.1.2 Establishment of Village or Community Development Committees (VDCs or CDCs) in rural and urban areas

According to Abosede et al (2012:7), community health care was provided to assist communities between 1986 and 1992, after which Village or Community Development Committees (VDCs or CDCs) were established in rural and urban areas respectively. The main problem was sustainability as communities saw the projects as government-owned and paid little or no attention. The Federal Ministry of Health (FMOH) provided the resources to build 200 ward health centres to be sited in wards that had no health facility in the 6 health zones of the country. The health system was then developed in the ward around the health centres and this was rolled out to the entire country as the development of its PHC services.

The challenge was that the Village Health Workers (VHWs) and Traditional Birth Attendants (TBAs) that were trained had either died or abandoned their community-based activities. One of the reasons for abandoning of community functions was long periods of no supervision resulting from financial constraints or inadequate funds.

3.3.1.3 Establishment of the ward health system (WHS) in 2000

The clinic prototype developed by the Institute of Child Health of the University of Lagos provided maternal services, family planning and adult care. At the clinic, service provision emphasised the quality of care resulting in a reduction of the patient's waiting time by using home-based records and pre-packed drugs; ensuring that care procedures were carried out according to standard practice; and that the child got all the preventive and curative measures due to him/her during the visit.

However, a lack of community involvement in planning and implementation still exists despite the subsequent establishment of the ward health system which was intended to enhance active community participation. In fact, services were not based on the health needs of the community. Service delivery was also poor due to inadequate and dilapidated physical infrastructure, basic equipment, drugs and supplies and poor information systems for evidence-based planning and management of PHC. To address these problems, the federal government has made provision for the construction of model ward PHC centres nationwide (Abosede et al., 2012:5).

Within the Nigerian context, the starting point was to strengthen existing PHC facilities to provide the range of interventions contained in the Ward Minimum Health Care Package. Availability of services at this level in terms of manpower, equipment and drugs reduced the bypassing of the PHC level. In each ward, a health centre was identified as the referral facility.

According to Metropolitan Health (2012:1), the system is relevant to the South African ward-based outreach system which was introduced in 2010. In South Africa, ward-based outreach teams have been introduced in the country's health system. This is viewed as a good system that will increase access to health services by bringing services closer to the people free of charge and also decongest outpatient

services at hospitals. The system will succeed if there is a linkage between the community and primary health services. This will occur through community participation where communities take charge of their own health. For instance, participatory women's groups can improve maternal and child outcomes by reducing maternal and child mortality; improving life expectancy; and managing communicable and non-communicable diseases.

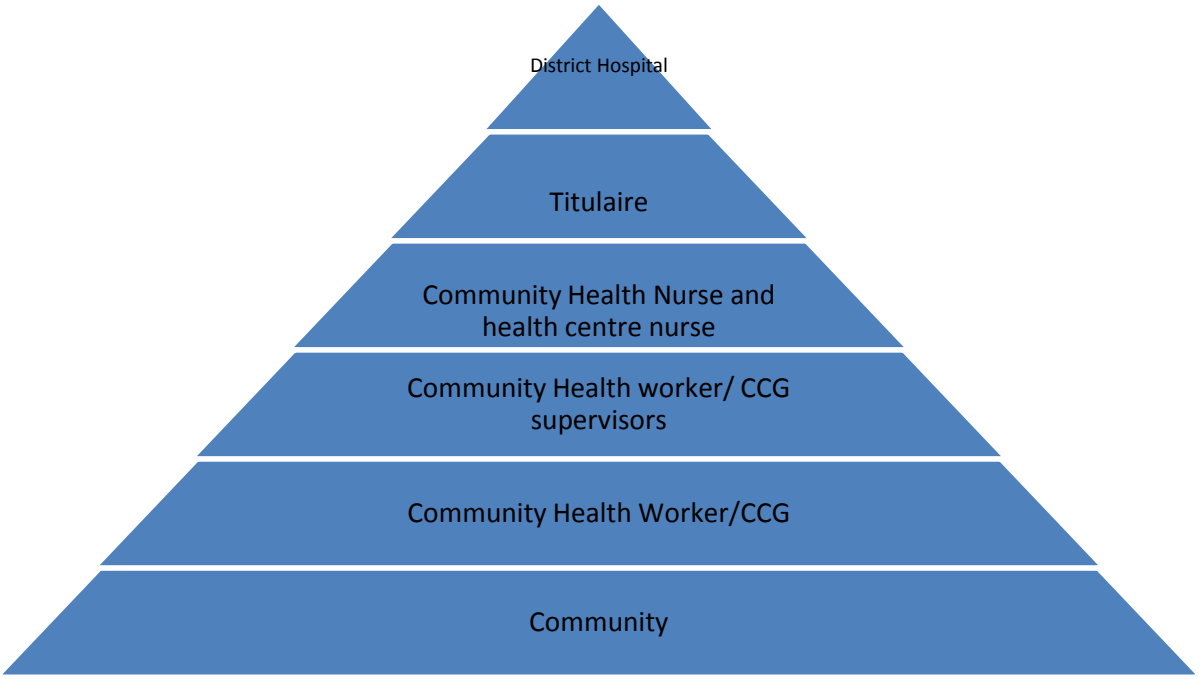
With the people at the centre, De Savigny and Adams (2009: 53), emphasise that populations are an integral part of the health system. The dynamic interactions of individuals, households and communities with the building blocks (subsystems) of the health system will determine vulnerability and, therefore, health-seeking behaviours. The health system also indicated that there are complex relationships between human resources, medicines, health financing, governance, health information and service delivery. Ward-based outreach teams (WBOTs) increase access to service delivery, free of charge at low costs for the department of health and with a reasonable number of human resources (a team leader is a professional nurse). This system also allows for integration (e.g. between school health, roving, tracer and family health teams). The district clinical specialist teams are responsible for governance issues such as policy, clinical protocols, standard treatment guidelines and standard operating procedures. Hence, the success should be huge (De Savigny and Adams 2009:53).

A study by Bigdeli, Jacobs, Tomson, Laing, Ghaffar, Dujardin and van Damme (2012:10) viewed access to medicines (ATM) barriers as complex and interconnected. However, the success of health systems is dependent on the adaptive nature of the subsystems (building blocks) in response to community needs and disease profiles. The system can also fail if these are either non-existent or are limited. For example national health policy should allow innovation in order to strengthen health systems. Human resources and infrastructure like vehicles and essential medical equipment should be adequate for the WBOTs to discharge their duties at community levels. Prioritisation of PHC re-engineering becomes critical.

3.3.2 Evaluation of primary health care services in Rwanda

The Rwandan health system has undergone many reforms. In terms of the "Banöme" system each village was allocated two CCGs who provided directly observed treatment (DOT). Thereafter, the scope increased was the provision of primary health care and maternal health services. The other programme was known as Partners in Health (PIH) which intended to improve outcomes with CCGs and provided payments for CCGs. The two programmes were later integrated into the Rwandan Community Health Program (CHP). Each CCG is responsible for 40 – 50 households where CCGs form a link between the community and a health centre and was chosen by the community. CCGs conduct monthly home visits, give education on health prevention and promotion, do case finding, conduct follow ups, provide family planning and DOT, as well as supporting HIV infected clients (Partners in Health 2011:5). CCGs were then integrated with other clinicians, though there was some reluctance at first due to the clinicians' negative perception to work with CCGs since they were not trained as professionals. The unified system improved the supervisory system. Figure 3.1 below illustrates the organisational structure for community health in Rwanda.

Figure 3.1: Organisational Structure for Community Health in Rwanda



Source: Partners in Health Unit (7:20)

The Rwandan organisational structure for community health care increased supervision at all levels. The diagram above illustrates that, in Rwanda, the level below the district hospital is that of the titulaire (health centre director). The concept "*titulaire"* is defined as a long term and fixed or permanent job. The *titulaire* supervises medical and related services, community health and the health centre nurse. The diagram above illustrates the levels of primary health care in which the community is at the lowest level where CCGs and CCG supervisors worked.

CCGs are responsible for household visits; health assessments; treatment and referrals to higher levels; follow ups; record keeping; and the submission of monthly reports. The programme created job opportunities even for the marginalized, increased PHC attendance; improved TB and MDR management; and improved adherence to treatment. However, there were also challenges. For example, the number of CCGs could not cope with the burden of TB, HIV and AIDS, inadequate resources for training, long travelling distances and bad terrains.

The activities of the CCGs in Rwanda are similar to those provided in South Africa, KZN and UDM. UDM is experiencing a lack of supervision of CCGs whereby reports are not submitted on time; leave management is a problem; and one finds that a CCG has left for other employment opportunities but remains on the PERSAL system and therefore gets paid a stipend whilst not delivering a service. South Africa should consider an organisational structure to increase CCG supervision. OSS implementation seeks to collaborate with other stakeholders, namely departments of transport, agriculture, social development, education and local municipalities in order to address health and social issues and road infrastructure as a means to fight starvation and increase access roads to clinics or use by mobile vehicles. This could be facilitated by the "Titulaire".

3.3.3 Evaluation of primary health care services in Malawi

Primary health services are provided by professionals and the Village Health Workers, the latter being recruited through the village headmen and Health Surveillance Assistants who are Ministry of Health (MOH) employees. Like Rwanda, the PIH model is also implemented in Malawi where CCGs are trained and tested before starting to work. CCGs in Malawi also form a link between the clinics or to the hospital-based setting. The field workers conduct home visits, conduct

assessments, provide health education, screen patients and make referrals to a clinic or a hospital-based setting. The programme increased the uptake in medical services and promoted HIV and TB treatment adherence, resulting in long-term improved health outcomes. The programme also created jobs and improved the family lives of the CCGs.

Lessons learnt from Malawi are that:

- The country has a viable and active PHC system in place, although it has its own problems;
- The political and health authorities in Malawi remain committed to improving accessibility to community health services; and
- There is also a network of volunteers and community health workers who are actively involved in the delivery of various health services at community level. (Makaula, Bloch, Banda, Mbera, Mangani, de Sousa, Nkhono, Jemu and Muula 2012:27).

The lessons learnt from Malawi will empower the researcher in eliciting valuable information during the study which will guide recommendations for the provision and evaluation of the management of PHC services in rural wards in UDM.

3.3.4 Evaluation of primary health care services in Haiti

Haiti implements an integrated health system based on the PHC model known as “the Hospital Albert Schweitzer or HAS”. The model includes comprehensive community-based PHC, intersectoral interactions and referral to hospital. The model mainly focuses on infant and under 5 mortality. The country partnered with local communities as there were fewer resources like physicians and hospital beds but more nurses and CCGs, as well as other outreach and support staff. The PHC programmes, namely maternal and child health services were also delivered by the local NGO’s and trained family health teams. According to Macinko, Starfield and Erinosho (2009:154), there was about a 52% reduction in infant mortality and a 49% reduction in under-5 mortality after 5 – 6 years.

The lessons learnt from the PHC model used in Haiti include local partnerships with doctors, private hospitals and NGOs in the provision of key PHC programme. These

lessons will guide this study and its recommendations on how best intersectoral collaboration within OSS can be reached, as well as how the district municipality can utilise the existing space within the rural wards in order to increase active participation by all stakeholders and improve health outcomes.

3.4 Strengths and Weaknesses of International and Sub-Saharan Africa ward based PHC services

The PHC programmes in these countries had both strengths and weaknesses. South Africa can learn from best practices identified in these countries. Developing countries cannot keep up with increasing demands for health care services resulting from the burden of disease and other social determinants of health. The shortage of highly educated health professionals is a critical challenge. Community caregivers are offered limited amounts of training, supplies and support to effectively provide ward-based PHC services.

3.5 Measuring goal achievement and linkage to Monitoring and Evaluation

3.5.1 Health

Improving health refers to addressing the health status of the entire population so that there is effective disease control and that pre-maturing and disability are presented. PHC programmes are focused on increasing life expectancy; reducing child mortality (e.g. under-five years and under-one year); maternal mortality; and curbing communicable diseases (e.g. HIV/AIDS, STI's and TB) and non-communicable diseases (e.g. diabetes, hypertension, trauma and injuries). It is crucial that people have access to any level of care, starting at the family, household and community level then to a clinic and that equity is always observed. Health is improved by amenities of adequate quality, cleanliness, space, hospital food and access to social support networks (family and friends) for those on treatment and care. One has a right to choose a service provider or individual or organization to deliver one's care.

3.5.2 Responsiveness

Responsiveness is one of the overall goals or outcomes of the WHO Health System Framework. It refers to how the health care system responds in meeting or not

meeting the population's expectations. It refers to issues like cleanliness, availability of medicines, waiting times to be seen at the clinic or OPD and staff attitudes (no respect, rude, non-caring, etc.) These issues are also reflected in the six priorities of the Minister and in the National core standards. Responsiveness can be assessed from people satisfaction surveys, complaints and compliments systems which are from people's perceptions (client-oriented). The more responsive the country's health care system, the greater utilisation of PHC services.

3.5.3 Social and financial protection

Another overall goal or outcome identified by the WHO Health System Framework is social and financial protection. Poor communities, especially in rural areas, need financial protection more than rich urban communities. Poor communities are mostly affected by social determinants of health like poverty, unemployment, morbidity and mortality, etc. They also have health and human rights that must be upheld by the health care system. Therefore, countries like Thailand, Brazil, India and Cuba have succeeded in discharging the responsibility of not just improving people's health also protecting them against the financial cost of illness while treating them with dignity.

3.5.4 Improved Efficiency

Effiency is also seen as a critical outcome in the WHO Health System Framework. It has been identified that countries like Brazil, Thailand and Cuba have achieved health outcomes at lower costs. To achieve this, the country must provide financial risk protection for all. According to the WHO report (2010: 3), universal coverage is defined as ensuring that all people obtain the health services they need without suffering financial hardship when paying for them.

3.5.5 How financial protection affects equity and efficiency?

Unresponsiveness reduces access to health (equity) and resources. The poor cannot always afford out-of-pocket payments. Therefore, ward-based PHC services (free of charge) improve equity. Since these are less costly, efficiency can be achieved by ensuring high utilization of PHC services at ward level. For example, in Brazil, PHC services are provided to more than eighty-five (85) million people (more

than 55%). McIntyre (2013:29) discusses the critical issues of active purchasing for allocative efficiency and equity as well as active purchasing for technical efficiency.

Active purchasing for **allocative efficiency and equity** involves the following:

- Identifying the health care needs of the population and the services required to meet these needs (cost-effective interventions at the appropriate level of care);
- Ensuring that these services are available (e.g. through the strengthening of ward based PHC delivery - Level 1 care);
- Identifying appropriate providers who can provide the required range of services in all areas from whom to purchase; and
- Allocating money according to the identified need.

Active purchasing for **technical efficiency** includes the following:

- Provision of standard treatment guidelines and essential drug list in line with evidence on cost-effectiveness;
- Using purchasing power to influence prices / payment rate levels;
- PHC gatekeeping and management of referrals; and
- Provision of appropriate incentives for efficient provision of high quality services through provider payment mechanisms.

3.5.6 Challenges in monitoring and evaluation

In 2005, the global statistics reported that more than 40, 3 million people lived with the human immunodeficiency virus (HIV). The report from UNAIDS/WHO indicated that close to 5 million people were newly infected in 2005 (Mngomezulu 2009:1). According to this report, approximately 2.3 million people died of HIV in 2003 and almost half of the people living with HIV/AIDS were women in the reproductive age group. This excessive loss of human life became a concern in Sub-Saharan Africa, which had the highest infection rate. Approximately 25.8 million people in this region were already living with HIV, meaning that two-thirds of all people living with HIV were in Sub-Saharan Africa and 77% percent of these were women (Mngomezulu 2009:1).

3.6 Lessons for South Africa

South Africa could benefit from lessons learnt in Sub-Saharan Africa and the international countries discussed above with regard to the management of PHC. The Brazilian Family Health Programme has many achievements as indicated in the aforementioned evaluation. The ward-based teams, including family health teams in South Africa are viewed as the best model to implement the NHI. The South African NHI model was derived from the WHO definition of "universal coverage". The Department of Health has been systematic and thorough in building a model based on appropriate research and the country's internal learning. There has also been commitment from Finance and Treasury to provide funding and both the Health and Finance departments speaking the same language. The South African NHI system that has been piloted for the past two years in ten (10) plus one (1) districts (Three districts are from KwaZulu-Natal Province) is one lesson learnt from Brazil and Thailand.

District municipalities will become more closely involved in the purchasing of services under the NHI, taking on more responsibilities as their capacity allows. The PHC services within a district will be provided in the community through mobile clinics; fixed clinics; community health centres (CHCs); General Practitioner (GP) services; and district hospitals. The district plans will also cover the development of a referral system with regional hospitals; and support services such as emergency medical services, blood and blood product providers; and laboratory services. Private sector providers will be contracted to improve gaps in service delivery and to help promote innovations in service delivery, as has started with the national contract for general practitioners.

In addition to ward-based PHC, South Africa is contracting GPs to work at clinics. Though more focus is on NHI pilot districts (UMgungundlovu, UMzinyathi and Amajuba), UDM has partnered with UMzinyathi and Amajuba districts (as they are in all region 3) to learn from best practices for readiness during the NHI rollout after 5 years. The Islamic Medical Association (IMA) group of specialists and other clinicians (multi-disciplinary teams) provide volunteer PHC outreach in most rural wards in UDM. It improves access and fasttracks specialist services.

The Cuban programme is two-fold, namely for students whose parents or guardians cannot afford fees and those parents who can afford to send South African students to study medicine in Cuba so that they learn the Cuban community health programmes. The department is solely responsible for the programme in the first group of students while paying for air tickets, meals and stipend in the latter group. The returning doctors work better in the community than in a hospital setting as the focus is more on preventive and promotive than curative-relevant programme. South Africa and KwaZulu-Natal could integrate these Cuban trained doctors into the ward-based teams.

3.7 Conclusion

The chapter evaluated primary health care services in international countries and Sub-Saharan Africa. The evaluation provided insights into the success factors that improved each country's health outcomes. Factors like community involvement including house-to-house visits by health staff; group meetings for education and support on health issues, outreach workers providing health services in the community and a community level health worker (CCG) to support community based health management has measurable effects on the improvement of child health (MDG4). There was evidence of empowering communities on skills, information and confidence to make decisions about the choices affecting their own lives and health as an overarching strategy that underpins these gains. Evidence from the implementation of the health initiatives showed how accountability can catalyse the improvement in efficiency and effectiveness of local service delivery.

The next chapter describes the research methodology of the study.

CHAPTER 4: RESEARCH METHODOLOGY

4.1 Introduction

Saunders, Lewis and Thornhill (2009:118) assert that research is conducted in accordance with the research philosophy, the research strategy and the research instruments used in the pursuit of the research aim and the objectives. The research questions and research objectives were outlined in chapter one. The purpose of this chapter is to describe the research methodology used in the study in order to enable the drawing of inferences to correctly answer the research questions. The chapter will also present the research design including population, sampling, data collection and analysis procedures. The ethical considerations, pilot study, limitations of the study and elimination of bias will also be discussed. Relevant covering and permission request letters as well as the letter of informed consent will be presented in this chapter and these are attached as appendices.

4.2 The characteristics of the CCG sample

Table 4.1: Demographics of respondents (n=368)

Municipality					
		Frequency	**Percentage**	**Valid Percentage**	**Cumulative Percentage**
Valid	Emnambithi	87	23.6	23.6	23.6
	Imbabazane	16	4.3	4.3	28.0
	Indaka	127	34.5	34.5	62.5
	Okhahlamba	86	23.4	23.4	85.9
	Emnambithi	2	.5	.5	86.4
	UMtshezi	50	13.6	13.6	100.0
	Total	**368**	**100.0**	**100.0**	

As highlighted in chapter one, the ten wards in Indaka Local Municipality are entirely rural. Hence, a higher percentage of CCGs (34.5%) in the sample came from the rural wards of Indaka Local Municipality followed by Emnambithi/Ladysmith Local

Municipality (23.6%) and then Okhahlamba Local Municipality (23.4%). Lower percentages of respondents came from UMtshezi (13.6%) and Imbabazane (4.3%) Local Municipalities.

The findings indicate an adequate representation of the 10 wards in the sample, thus ensuring an acceptable level of generalisation within UDM.

4.3 Philosophical dimensions

The philosophical dimensions that distinguish research paradigms are ontology, epistemology and axiology.

4.3.1 Ontology

Ontology refers to the reality being investigated (Maree, Creswell, Ebersöhn, Eloff, Ferreira, Ikankova, Jansen, Nieuwenhuis, Pietersen, Plano and Westhuizen 2010:31). It is also known as the research domain of the social sciences and relates to domain assumptions and beliefs about the nature, structure and status of social phenomena (Maree et al 2010:31).Ontology view social reality as external, objective and independent of social actors. Maree et al *(*2010:53) posit that natural reality refers to the nature or essence of the social phenomena being investigated as it naturally occurs and is experienced. The study took place in a natural environment where data was collected in the municipality in rural wards through CCGs (field workers) and operational managers.

4.3.2 Epistemology

According to Wahyuni (2012:70), epistemology constitutes the nature of knowledge and how it could be obtained; its possibility, scope and general basis. It seeks to understand the nature of knowledge and the relationship between the knower and the would-be known. Epistemology is associated with ontology (Maree et al., 2010:32; Wahyuni 2012:70). The creation of knowledge in this study will stem from understanding how CCGs are selected and allocated to rural wards and by evaluating factors affecting CCG performance, as well as monitoring and evaluation of PHC in the wards. This knowledge will assist the study in differentiating between true and false information. It is envisaged that the knowledge obtained will guide innovative strategies to bridge the gaps in the monitoring and evaluation of the management of ward-based PHC in Uthukela District Municipality.

4.3.3 Axiology

The other important philosophical dimension in the study is axiology. Wahyuni, (2012:70) asserts that axiology involves ethics and identifies the roles or values in the research and the researcher's stance in relation to the subject being studied. According to Rossman and Rollis (2012:42), different people will have different perspectives. The researcher's experiences, beliefs and values will be considered in the research design and analysis of data so that the ethical rights of respondents are upheld and they are not subjected to any physical harm during the study.

4.4 Research paradigm

Maree et al (2010:47) define a research paradigm as the set of assumptions or beliefs about fundamental aspects of reality which give rise to a particular world view. For example, beliefs about the nature of reality (known as ontology), the relationships between the knower and what is to be known (epistemology and assumptions made about the methods) form part of the research paradigm.

Theoretical perspectives reflect one's philosophical stance, inform the methodology and provide a context for logic and criteria. Therefore epistemology and ontology prove the theory of knowledge and view of reality underpinning one's theoretical perspective and methodology. A paradigm provides a conceptual framework for seeing and making sense of the information obtained from questionnaires and interviews in order to be able to answer the research questions (Rossman and Rollis 2012: 11).

Creswell (2009:3); Saunders, Lewis and Thornhill (2009:119); and Jonker and Pennink (2010:159) emphasise that it is vital to question the research paradigm to be applied in research as it affects the way the researcher undertakes a social study from the way of framing and understanding social phenomena. A discussion of the two paradigms that are most relevant for the study, namely positivism and interpretivism, follows.

4.4.1 Positivism

4.4.1.1 Description of positivism

Wahyuni (2012:71) describes positivism as a paradigm that involves hypothesis testing to obtain "objective" truth. It is also used to predict the future. In positivism,

the researcher acts as a scientist. Positivists believe that reality is stable and that it can be observed and described from an objective point of view. Positivists believe that phenomena should be isolated and observations repeatable due to the belief in value-free and law-like generalisations. Critical realism is a subtype of positivism that incorporates some value assumptions on the part of the researcher. Positivism is associated with quantitative research and researchers rely on objective data to derive conclusions. The quantitative aspect of relevance to this study is the administration of the questionnaires to CCGs to collect data and the use of statistical tools to analyse data.

4.4.1.2 Quantitative research design

Creswell, Klassen, Clark and Smith (2011: 4), describe quantitative research as the mode of enquiry aimed at testing theories and hypotheses, collecting descriptive information and examining relationships between variables. In quantitative research, the researcher strives to be as objective as possible in seeking precise measurements and analyse target concepts in answering the inquiry.

According to van Wyk (2010:16), in most instances quantitative research methods are associated with deductive approaches (based on logic), while qualitative research methods are usually associated with inductive approaches (based on empirical evidence). The author further maintains that deductive-quantitative designs are usually more structured than inductive-qualitative designs.

4.4.1.3 Strengths and limitations of quantitative research

The following strengths and weaknesses of quantitative research methods were identified by Creswell (2009:173) and Babbie (2010: 4):

4.4.1.3.1 Strengths of quantitative research

- Allows for a broader study involving a greater number of subjects and enhancing the generalization of the results;
- Allows for greater objectivity and accuracy of results. Generally, quantitative methods are designed to provide summaries of data that support generalizations about the phenomenon under study. In order to accomplish

this, quantitative research usually involves few variables and many cases, and employs prescribed procedures to ensure validity and reliability;

- Applying well-established standards means that the research can be replicated and then analysed and compared with similar studies;
- One can summarize vast sources of information and make comparisons across categories and over time; and
- Personal bias can be avoided by keeping a 'distance' from participating subjects and using accepted computational techniques.

The quantitative research method was chosen due to the above strengths. Quantitative research was considered relevant for the four-hundred (400) CCG interviews as it will also allow for greater generalisability (Creswell 2009:173; Babbie 2010: 4).

4.4.1.4 Limitations of using quantitative methods

Creswell (2009:174) and Madrigal and McClain (2012:2) identified the following limitations of using quantitative methods:

- Quantitative data may miss contextual detail though it is more efficient and able to test hypotheses;
- There is use of a static and rigid approach that employs an inflexible process of discovery;
- The development of standard questions by researchers can lead to "structural bias" and false representation, where the data actually reflects the view of the researcher instead of the participating subject;
- Results provide less detail on behavior, attitudes, and motivation;
- Narrow and superficial datasets may be collected by the researcher;
- Results are limited as they provide numerical descriptions rather than detailed narrative and generally provide less elaborate accounts of human perception;
- Quantitative studies might pose a problem to researchers especially non-mathematicians, due to extensive statistical analysis;
- The research is often carried out in an unnatural, artificial environment so that a level of control can be applied to the exercise. This level of control might not

normally be in place in the real world thus yielding "laboratory results" as opposed to "real world results"; and

- Preset answers will not necessarily reflect how people really feel about a subject and, in some cases, might just be the closest match to the preconceived hypothesis.

The above weaknesses of quantitative methods were considered in this study. A mixed research method was chosen in order to reduce the influence of these limitations on the findings.

4.4.2 Interpretivism

4.4.2.1 Description of interpretivism

According to Sheridan *(*2010:92), interpretivism is a paradigm that obtains an understanding of the world from an individual's perspective, believing that human beings interpret and define each other's actions and that human interaction in the social world is mediated by the use of symbols like language, which help human beings to give meaning to objects. Interpretivism subscribes to constructivism in that there is an assumption that reality can be accessed through social constructions like language and symbols, consciousness and shared meanings. Interpretivists believe that human life is understood from within and therefore subscribes to subjectivism whereby people share their experiences, meanings and how they interact or relate with one another (Sheridan 2010:92).

4.4.2.2 Qualitative research design

Qualitative research design is a research method used by scientists and researchers studying human behaviour and habits. Qualitative research is primarily subjective in approach as it seeks to understand human behaviour and the reasons that govern such behaviour. Researchers tend to become subjectively immersed in the subject matter which serves as the primary data gathering instrument.

Interpretivists usually interact and have dialogues with participants and work with qualitative data in order to enrich the descriptions of social constructs. Unlike positivists, interpretivists use a narrative form of analysis in order to describe specific and more detailed information about the social reality being studied. The

study by interpretivism researchers is from an insider perspective and the study is also known as the emic (the insider's view and voice) perspective as the social reality is studied from the perspective of the people themselves (Maree et al., 2010:59). The emic (insider) perspective refers to the OM in the study. The values and the experiences of both the researcher and the participants influence data collection and data analysis. In this study, interpretivism was applied during the interview of the operational managers.

Since Interpretivists believe that reality is constructed by social actors and people's perceptions of it, conducting interviews with OMs elicits more information, for instance, on factors affecting performance of CCGs, monitoring and evaluating strategies and performance management system to provide effective and efficient PHC. People's backgrounds, assumptions and experiences contribute to the construction of reality.

4.4.2.3 Strengths and limitations of qualitative research designs

There are strengths and limitations of qualitative research designs.

4.4.2.3.1 Strengths of qualitative research designs

According to Creswell (2009:175), the following are the strengths of the qualitative research design:

- Qualitative techniques are extremely useful when a subject is too complex to be answered by a simple yes or no hypothesis;
- These types of designs are much easier to plan and carry out. They are also useful when budgetary decisions have to be taken into account;
- The broader scope covered by these designs ensures that some useful data is always generated, whereas an unproved hypothesis in a quantitative experiment can mean that a lot of time has been wasted; and
- Qualitative research methods are not as dependent upon sample sizes as quantitative methods. For example, a case study can generate meaningful results with a small sample group.

The researcher will capitalise on these strengths in this study in order to obtain a deeper understanding on the management of ward-based PHC services in the district municipality.

4.4.2.4 Limitations of qualitative research designs

- Whilst not as time or resource consuming as quantitative experiments, qualitative methods still require a lot of careful thought and planning, to ensure that the results obtained are as accurate as possible;
- Qualitative data cannot be mathematically analyzed in the same comprehensive way as quantitative results, so can only give a guide to general trends. It is more open to personal opinion and judgment, and so can only ever give observations rather than results; and
- Any qualitative research design is usually unique and lacks replication.

These limitations are considered in this study and the services of an experienced statistician are engaged.

Both positivism and interpretivism underpin the quantitative and qualitative debates respectively. Creswell and Plano Clark (2009:35) maintain that the researcher should review the basics of quantitative and qualitative research since both will be included in the mixed-methods study. Therefore, with regard to the qualitative approach, the researcher becomes an inquirer and experience and background determine the interpretation they make through the code and theme development process (Maree et al., 2010:107). In the quantitative approach, the researcher becomes an investigator. They are in the background and take actions to reduce the bias and enact procedures to reduce threats to the validity of the study (Maree et al., 2010:108).Therefore, the role of the researcher includes that of an interviewer, interpreter, analyst, investigator and inquirer.

4.4.3 Pragmatism

4.4.3.1 Description of pragmatism

According to Feilzer (2010:8), pragmatism is a deconstructive paradigm that advocates the use of mixed methods in research and “sidesteps the contentious

issues of truth and reality". It emphasises 'what works' as the truth regarding the research questions under investigation. AlGhamdi (2013:3), describes pragmatism as a reasonable and logical way of doing things or of thinking about problems that is based on dealing with specific situations instead of on ideas and theories. Sheridan (2010:92) maintains that pragmatism (mixed methods) allows for the researcher to use a mix of two paradigms, namely qualitative and quantitative.

4.4.3.2 Mixed methods research approach

4.4.3.2.1 Description of mixed research methods

Creswell (2011:4), defines mixed methods research as a procedure of collecting, analysing and mixing both quantitative and qualitative data at a certain level. The study used both quantitative and qualitative data. Various terminologies are used for the mixed methods, namely integrating, synthesis, quantitative and qualitative methods or mixed methodology. Mixed methodology is popular in both researching and teaching methodology across the social sciences. Researchers across these fields are expected to be proficient in both quantitative and qualitative techniques (Creswell 2011:217).

4.4.3.2.2 Background to mixed research methods

Mixed research methods started in the 1980s and 1990s in different areas of study, namely education, evaluation, management, social and health sciences. It has gone through various development , for example, in formative evaluations, philosophical debates and procedural developments (Creswell and Clark, 2011:7) and Creswell 2011:218).

4.4.3.2.3 Value and rationale for using mixed methods

Maree et al (2010: 263) identify the following four objectives achieved by the mixed methods approach:

- Explanation or elaboration on quantitative results with subsequent qualitative data;
- Development of a new measurement or theory that is to be tested;

- Comparison of quantitative and qualitative data sets in order to obtain well-validated conclusions; and
- Enhancement of the study with a supplementary data set, either quantitative or qualitative.

The study used a mixed method research approach, that is, quantitative and qualitative methods, in order to allow complementary data and more complete analysis of the research situation (Creswell et al., 2011:5). The intention was to maximise the strengths and minimise the weaknesses of each type of data. The intent was also to view the problem from multiple perspectives in order to enhance and enrich the meaning of one perspective through merging quantitative and qualitative data to develop an in-depth understanding of the research problem (Creswell et al., 2011:6 citing Clark 2010).

4.4.4 Strengths and limitations of mixed methods research

4.4.4.1 Strengths of mixed methods research

It can be asserted that both procedures have strengths and weaknesses. Creswell (2011:4) established that a mixed methodology provides for explicit, diverse philosophical positions. Therefore, mixing or blending of data results in a deeper understanding of the problem under investigation or questions of the research. The use of a mixed method helps in overcoming the weaknesses of each method (Tashakkori and Teddlie, 2010:12). Mixed methods provide for a complex approach in research which serves as an interest to researchers who are keen on new research procedures. Mixed methods are ideal in that they provide both quantitative and qualitative data.

Mixed methods enhance and enrich the meaning of a singular perspective since researchers view problems from multiple perspectives through rigour (Creswell 2011:230). There is integration of multiple forms of data (merging, connecting, and embedding data) and explanation or elaboration on quantitative results with subsequent qualitative data (Creswell 2011:233).

Mixed methods enhance the development of a new measurement or theory that is to be tested with a comparison of quantitative and qualitative data sets in order to

obtain well-validated conclusions. There is also enhancement of the study with a supplementary data set, either quantitative or qualitative (Creswell 2011:233).

Creswell (2011:6) identified the following practical uses of mixed methods research:

- Explaining survey results;
- Exploring the use of new instruments in new situations;
- Confirming quantitative results with qualitative findings;
- Adding qualitative data into experiments;
- Understanding community health research; and
- Evaluating programme implementation.

4.4.4.2 Limitations of mixed methods research

While appreciating the strengths of mixed methods, there are limitations as well. These include extensive data collection and time-consuming analysis of quantitative and qualitative data. More time is spent to carry out the multiple steps and in data collection and analysis result in high costs. Findings may conflict or contradict during merging of data resulting in analytic and interpretive problems. Unequal emphasis makes interpretation difficult. Deciding on what results to use from first phase, choosing samples and estimating sample size and interpreting results from the two phases is often difficult thus making sampling Issues and merging quantitative and qualitative research difficult. Page and word limitations affect publication of mixed methods studies.

The researcher needs to be familiar with both quantitative and qualitative methods. As the design becomes more complex, the researcher needs to have clear models and to understand the flow of the research activities.

4.4.5 Reasoning Strategies used in the study

The study used both deductive and inductive reasoning. Heiti and Rotello (2010:807) identified relations between deductive and inductive reasoning and these are discussed below.

4.4.5.1 Deductive reasoning

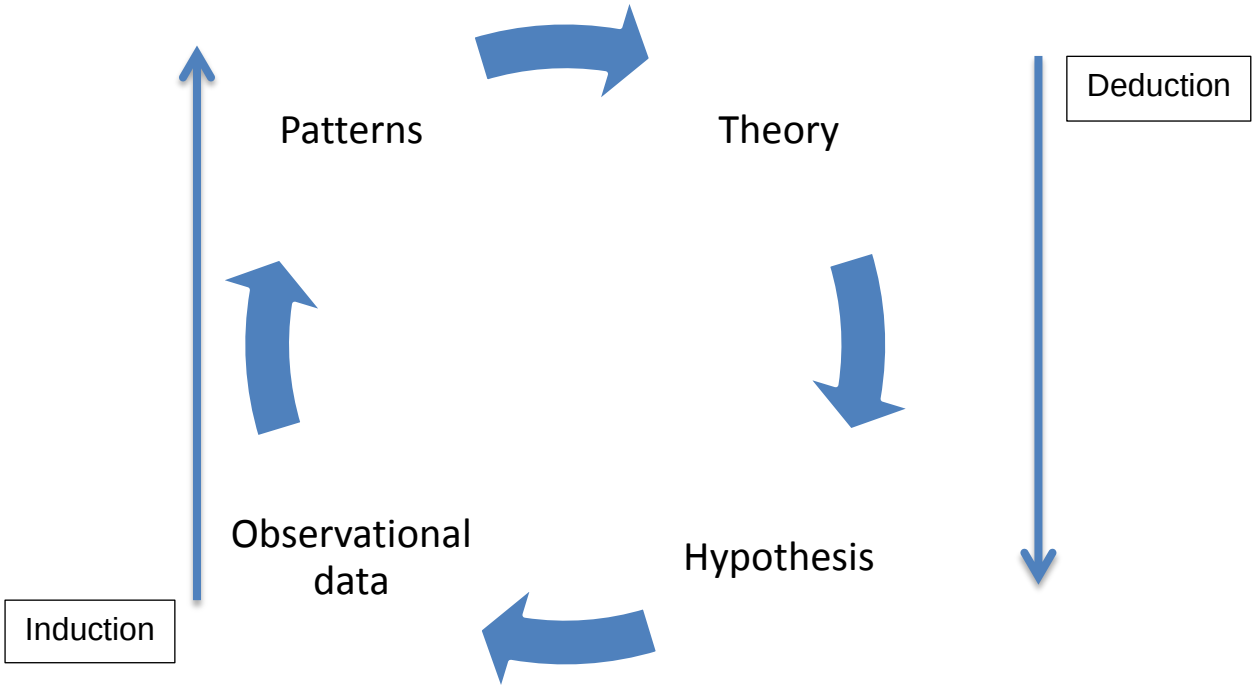
Deductive reasoning assumes that if the premises are correct, the conclusions are correct. Deductive reasoning subscribes to positivism. The research also used quantitative deductive reasoning for collecting data from the CCGs. Objective data was value-free and data was expressed in numbers and was considered reliable. Hence, a quantitative research design was used in this study.

4.4.5.2 Inductive reasoning

According to Hayes, Heit and Swendsen (2010:278), inductive reasoning is used by researchers in the naturalistic paradigm. It makes predictions about novel cases based on existing or limited information Inductive reasoning subscribes to interpretivism and is based on the assumption that there is more than one reality to better understand a situation. Qualitative research follows inductive reasoning as it involves observations, questions and understanding ward-based PHC from an individual perspective and then generalising it to all rural wards. Inductive reasoning was used during interviews of the operational managers of rural clinics in UDM. During the field work, the researcher made field notes and observations which were used during data analysis for developing themes for questionnaires.

Figure 4.1 below depicts the directions of reasoning.

Figure 4.1 Directions of Reasoning



Source: Adapted from van Wyk (2010:14).

The researcher would be able to use this knowledge in order to understand the reality of the phenomena.

4.5 Research methodologies and methods

Research involves the utilisation of methods and tools to obtain knowledge. Methodology refers to the model used in the research process in the context of a particular paradigm, while research methods refer to a set of specific procedures, tools and techniques to collect and analyse data. Research methodology formed the basis of the research and it guided the collection of data, analysis and theory development. A mixed method was used in this study. A descriptive study was undertaken using both qualitative and quantitative research methods (Creswell Klassen, Clark and Smith 2011:22). Interviews with CCGs at the rural ward level and OMs in rural clinics of UDM were conducted. The data was collected from participants using questionnaires. Closed and open-ended questions were used to elicit more information in order to answer the research questions. Authority to undertake research was obtained from the Head of Department and support

obtained from the CEOs as the responsible managers for clinics (Appendices C and D respectively).

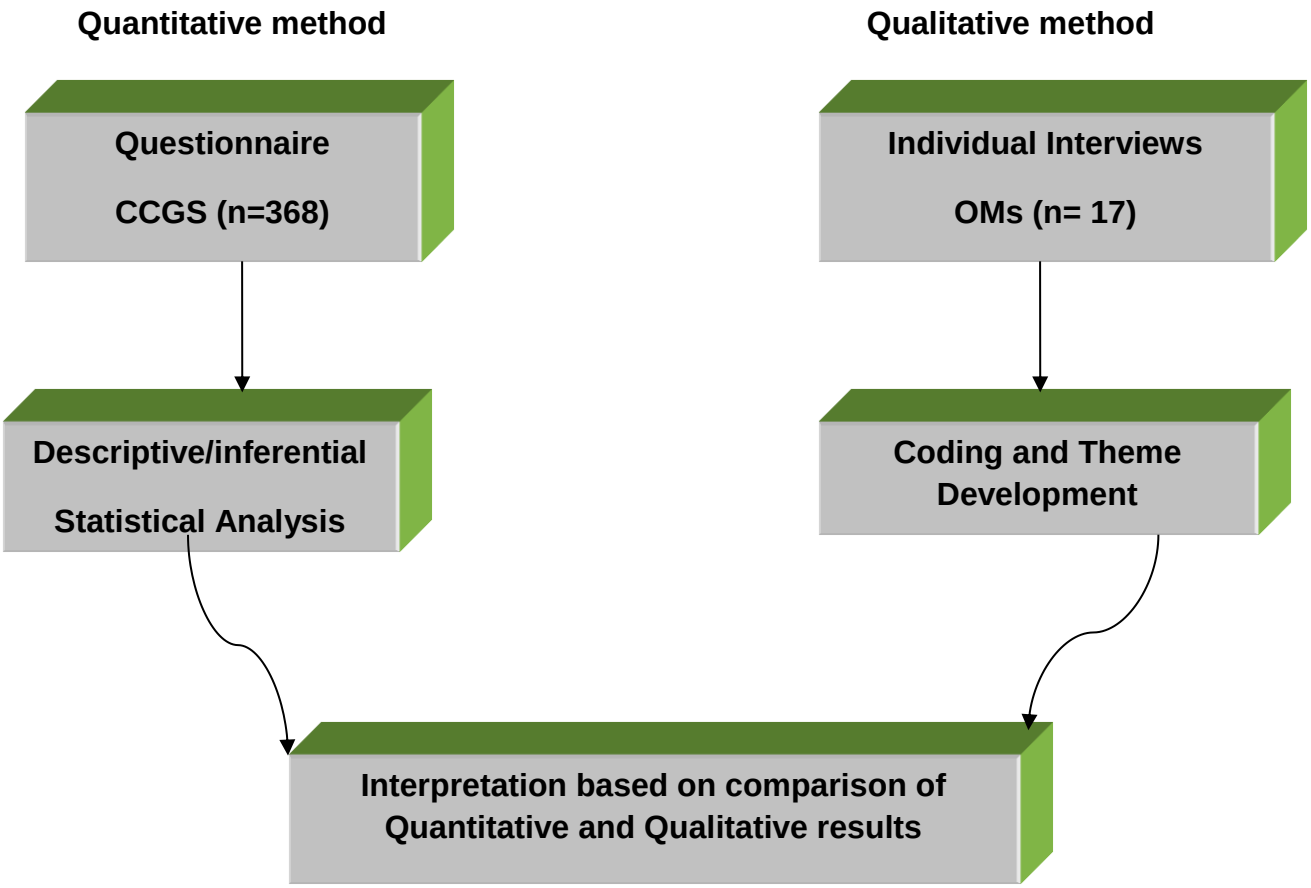
4.6 Research Design

Mouton and Babbie (2009:74) define research design as a blueprint of how researchers intend to conduct the study. It is a plan of how the researcher is going to obtain research respondents and information from them in order to address the formulated problem. Creswell and Guetterman (2014:11) highlighted that the purpose of the research design is to define the structure of the enquiry into a research problem in order to produce a valid and meaningful argument for the researcher's audience within the available time and resources. The purpose of the research and the research questions guide the research design.

4.6.1 Triangulation

Hussein (2009:6) defines triangulation as a combination of qualitative and quantitative methods in order to validate qualitative with quantitative results. It intends to obtain a true picture of the situation from different research methods and analyse findings. Bryman (2012:2) and Hussein (2009:3) distinguish amongst four types of triangulation, namely data triangulation, investigator triangulation, theoretical triangulation and methodological triangulation. A researcher uses different data sources and analysis methods in triangulation. In this study, data triangulation was achieved by using two different samples, that is the CCG and the OM sample; while methodological triangulation was achieved through the use questionnaires and interviews in order to obtain validity of the findings.

Figure 4.2 Triangulation mixed methods design and procedures



Source: Adapted from Maree et al. (2010: 274)

Triangulation was used to compliment quantitative and qualitative data sets in order to obtain well-validated conclusions. Quantitative and qualitative data were collected and analysed simultaneously. The quantitative part of the study used data from the questionnaires administered to three hundred and sixty-eight CCGs working in rural ward of UThukela district. The qualitative portion used data that was collected from interviews of seventeen OMs in rural clinics.

4.6.2 Selection and recruitment of research participants

4.6.2.1 Target population

The population was seven hundred and twenty-eight CCGs in seventy-three wards of the five local municipalities in UThukela District Municipality. The secondary population comprised thirty-eight Operational Managers working in rural clinics, both fixed and mobile clinics. The CCGs were targeted as they were responsible for

interventions at a household level, while the OMs play an important role in planning, implementation and monitoring of CCGs activities, and for allocating resources.

4.6.2.2 Sample selection and size

A probability sample was selected due to the likelihood of any one district of the target population being selected (Saunders, Lewis and Thornhill, 2009:152). A simple random sampling technique was used to select a representative sample of CCGs in rural wards and operational managers of 20 clinics in UThukela District Municipality (Saunders et al. 2009:159). A simple random sample was chosen since each CCG and OM in the population theoretically had an equal chance of being selected for the sample. Urban wards were excluded from the study. The sample for the study is four hundred CCGs plus twenty OMs at rural fixed and mobile clinics.

4.7 Pilot tests

A pilot test is a preliminary test conducted on a smaller sample in order to identify strengths and weaknesses of the research instrument. The questionnaire was piloted for ten (10) CCGS and the one (1) operational manager. The pilot test allowed the researcher to test if the research instrument is measuring what it ought to measure and to eliminate bias in the study. It also gave an idea of how many interviews to conduct per day in order to plan accordingly. The shortcomings of both the structured and unstructured questionnaires were considered. The shortcomings identified that some respondents could not respond to some questions due to a language problem, while other found the objective questions confusing. There was no problem identified with the interview schedule for the operational managers. The questionnaires were then made simpler for the less educated respondents to interpret and respond appropriately.

4.8 Data Collection

The quality of the research is determined by the quality of data collected. This lies in the data collection methods which are discussed below.

4.8.1 Data collection methods

Data collection is incredibly important in any research project. Several aspects come into play in the data collection process. The three most crucial aspects include the cost of the selected data collection method, the accuracy of the data

collected and the efficiency of data collection. Data was collected through self-administered questionnaires where the CCGs answered the same set of questions independently. Interviews were conducted to collect data from the OMs at both fixed and mobile clinics.

After the questionnaires had been developed and pilot tested for both the CCGs and OMs, they were posted and emailed to the selected CCGs. However, due to postal delays experienced in rural areas, the questionnaires were delivered at the clinic where the CCGs were reporting through the Community Health Facilitators (CHFs). A covering letter accompanied the questionnaires along with a self-addressed envelope. Prior telephonic and email arrangements were made with the participants to ensure availability for the interview. The questionnaire was self - administered and comprised clear and simple questions where respondents were given clear instructions. It took between 15 and 20 minutes to complete the questionnaire to prevent exhaustion of respondents so that they honestly answer questions; thereby ensuring reliability. An interview schedule was used to interview OMs. The interviews took approximately 30 to 40 minutes each. Table 4.2 below illustrates the data collection plan and the process followed during the study.

Table 4.2: Data collection Plan

Planned Sequence	Planned Activity
Sequence 1	Administration of Questionnaire by post and email.
Sequence 2	Following up on questionnaires where required through telephone calls and emails.
Sequence 3	Conducting one-on-one interviews with OMs.
Sequence 4	Following up on one-on-one interviews where required and re-schedule interviews through telephone calls and emails.

Adapted from Maree et al. (2010: 36)

4.8.2 Data recording

Data recording was done together with field notes as a backup in case the instrument failed. Audiotapes were used in each interview and thereafter translated. The researcher prepared debriefing summaries of qualitative information from individual interviews daily, immediately after data collection. For all data collected, anonymity was maintained by using ascending code numbers instead of the respondent's name.

4.8.3 Self- administered questionnaires

Data was collected through self- administered questionnaires where the CCGs would answer the same set of questions independently. About two weeks were allowed for the completion and collection of the questionnaire but there were problems with the return of the questionnaires. Despite numerous calls made by the researcher, the researcher drove around the clinics in the five local municipalities to collect questionnaires. This improved the response rate.

4.8.4 Interview and the interview schedule

Despite the rising popularity of online and mobile surveys, face-to-face interviews remain a popular data collection method. A face-to-face interview provides advantages over other data collection methods.

On the day of an interview, the researcher arrived at least an hour before the set time in order to set up the room and the tape-recording equipment. The researcher ensured that the room was friendly, relaxed and free of distractions in order to enhance the free flow of ideas during the interview. Interviews were conducted to collect data from the OMs at both fixed and mobile clinics using an interview schedule. The interview schedule guided the interview and contained questions and themes that were crucial for the interview. Semi-structured interviews assisted the researcher in triggering more complex issues. Therefore, more clarifications and more in-depth and sensitive information was elicited. Interviews also allowed personal contact and interaction with the respondents. During an interview, the researcher adhered to principles and basic skills, namely communication skills, probing, paraphrasing, observations and analysis. The researcher's observations and field notes were part of the study.

4.8.5 Research Instrument

4.8.5.1 Structure of the questionnaire

The researcher adhered to the above guidelines when the questionnaire was designed. The questionnaire consisted of two parts with a total of twenty items. The first page of the questionnaire (Appendix H) contained the administration information, namely reference number, site details, ward and municipality. Part 1 of the questionnaire comprised the demographic information, while Part two (2) comprised questions regarding the constructs.

Part 1: Demographic information

Each participant was requested to respond on information regarding him/ here.

Question 1.1 Requested information about the respondent's race (For statistical purposes only);

Question 1.2 Requested information about gender;

Question 1.3 Requested information about age group;

Question 1.4 Requested information about educational qualifications;

Question 1.5 Requested information about years of experience as a CCG; and

Question 1.6 Related to information about how the CCG was allocated to the wards.

Part 2: Questions for CCGs in relation to constructs

The statements reflected in the questionnaire were categorised in terms of the research variables and these were reflected on the conceptual model in chapter two. Open and closed-ended questionnaires were used. A Likert scale was used and the participants were required to indicate the extent to which their responses were relevant. The purpose of using a Likert scale was to discover the strength of

the construct. The statements on the scale ranged from 1 to 5. The questionnaire was structured as follows:

Question 2.1	Related to the selection and allocation of CCGs;
Question 2.2	Related to the extent of CCG coverage in the wards;
Question 2.3	Related to the participation pf CCGs in PHC outreach teams;
Question 2.4	Related to the management of referrals by the clinics;
Question 2.5	Related to CCG participation in activities of PHC;
Question 2.6	Related to factors enabling CCGs to be more productive;
Question 2.7	Related to factors adversely affecting CCG performance;
Question 2.8	Related to the extent of CCG acceptance in the ward;
Question 2.9	Related to training and skills the CCG received to adequately work;
Question 2.10	Related to the submission of reports to the clinic;
Question 2.11	Related to feedback, performance reviews and additional skills at the clinics;
Question 2.12	Related to the frequency of performance reviews at the clinic;
Question 2.13	Related to career pathing offered to CCGs; and
Question 2.14	Related to additional challenges in providing ward-based PHC.

The findings and analysis for each question will be undertaken in the next chapter.

4.8.5.2 The advantages and disadvantages of using questionnaires

The advantages and disadvantages of using questionnaires are depicted in Table 4.3 below.

Table 4.3: Advantages and disadvantages of using questionnaires

Advantages	**Disadvantages**
Can contact **a large number of people** at a relatively **low cost** in postal and telephone questionnaires.	**Response rates can be low** in postal questionnaires and **refusal rates high** (telephone, face-to-face questionnaires.
Easy to reach people who are spread across a wide geographical area or who live in remote locations in postal and telephone questionnaires.	There is **little control over** who completes a postal questionnaire and may lead to bias
Respondents are able to complete postal questionnaires in their **own time and telephone call-backs can be arranged** for a more convenient time.	Postal questionnaires are inappropriate for people with **reading difficulties or visual impairments and those who do not understand English.**
Telephone questionnaires can make it **easier to consult some disabled people**.	Postal and telephone questionnaires must be kept **relatively short**.
Face-to-face questionnaires can make it easier to **identify the appropriate person** to complete the questionnaire.	Face-to-face and telephone questionnaires require the use of **trained interviewers**.
Face-to-face questionnaires can be **longer** than postal and phone questionnaires, collect more information and allow the use of 'visual aids'.	Face-to-face questionnaires are **time consuming** for respondents, more **costly and more labour intensive** than other methods.
Questions are **standardised**.	The manner of **question structuring**

	has impact on the responses.
	Falsification of information, for example, incorrect demographic information so they are able to complete the survey and gain the incentive. For the purpose of data analysis, the data will be inaccurate and misleading.
Respondents remain **anonymous**.	**Technological distractions.** For example: texting, reading and answering may occur.
Lack of interviewer **bias**.	
Closed questions are **simple** to analyse.	

Source: Wyse (2014: 6)

Questionnaires were used in the study since a large number of CCGs could be contacted at a relatively low cost with postal questionnaires as opposed to personal visits to clinics or while doing fieldwork during home visits, in order to eliminate demographic problems in rural settings, namely, long distances and bad terrain. The response rate was high (92%).

4.8.5.3 Advantages and disadvantages of using interviews

A face-to-face interview method provides advantages over other data collection methods. Table 4.4 below illustrates the advantages and disadvantages of using interviews.

Table 4.4: Advantages and disadvantages of using interviews

Advantages	**Disadvantages**
Accurate screening. Face-to-face interviews help with more accurate screening.	**Training and practice requirements**, namely process verbal and nonverbal information, guide direction and taking notes.

Capturing of verbal and non-verbal cues including body language, which can indicate a level of discomfort with the questions.	**Potential to give cues, bias or distort responses.** Interviewer may unintentionally influence interviewee's answers. Interviewer may consciously or unconsciously misinterpret or distort interviewee's responses.
Keeping focus. The interviewer is the one that has control over the interview and can keep the interviewee focused and on track to completion.	**Quality of data by interviewer.** The quality of data you receive will often depend on the ability of the interviewer.
Capture emotions and behaviors. Face-to-face interviews can capture an interviewee's emotions and behaviors.	**Interviewer characteristics**, namely interviewer's age, sex, ethnic background, speech patterns and dress can also influence interviewee responses.
Flexibility. Interviews allow greater flexibility in wording, sequence and direction. The interviewer can clarify or paraphrase questions if the interviewee is confused. It becomes easier to explore highly complex or abstract topics.	**Time and cost.** Time is spent on travelling to the interview venue and time taken during an interview since respondents tend to speaker longer than they would on telephonic interviews**.** Cost is a major disadvantage for face-to-face interviews. They require personnel to conduct the interviews resulting in personnel cost which is difficult to keep it low.
Face-to-face interviews are **free from technological distractions**	**Manual data entry.** If the interview is administered on paper, the data collected will need to be entered manually. This is labour intensive. Additional personnel for data entry will need to be hired, significantly increasing

	the cost of the project.
	Limit sample size. The size of the sample is limited to the size of your interviewing staff, the area in which the interviews are conducted and the number of qualified respondents within that area. Several interviews might be necessary over multiple areas, which again can increase costs.
	Confidentiality cannot be maintained

Source: Wyse (2014: 6)

4.8.6 Structure of the interview schedule

The interview schedule comprised of parts 1 and 2, where part 1 comprised demographic information and part 2 required the OMs to respond. The questions were semi-structured and the interview schedule was structured as below:

Question 1 Required respondents to indicate the type of their clinic;

Question 2 Referred to the deployment and placement of CCGs in the wards of UDM;

Question 2.1 Required number of CCGs supporting the clinic;

Question 2.2 Related to the selection of CCG;

Question 2.3 Related to the allocation of CCG

Question 2.4 Required respondents to indicate the size of the population covered by the clinic;

Question 2.5 Required respondents to indicate the number of households covered by the clinic;

Question 2.6 Related to reporting mechanisms used in the ward;

Question 2.7 Related to the management of interventions from war room;

Question 2.8 Required respondents to indicate their role at the clinic;

Question 2.9 Required respondents to indicate if resources were adequately provided to service the ward;

Question 3 Related to the effectiveness and efficiency of current PHC performance management systems;

Question 3.1 Required respondents to indicate if resources were adequately provided to service the ward;

Question 3.2 Required respondents to indicate factors that determined good performance management systems;

Question 4 Required respondents to make recommendations to overcome challenges in order to improve PHC in rural communities; and

Question 5 Required respondents to indicate additional comments.

4.8.7 Field notes

Field notes are defined as notations generally made to document observations during an interview. They indicate what the researcher sees, thinks or experiences during an interview. Field notes are divided into four categories, namely:

- Observational notes which comprise the descriptions of reality experienced through watching and listening during the interview. They contained the who, what, how and where of the phenomenon with very little interpretation.
- Theoretical notes which entail purposeful attempts to derive meaning from the observational notes. Observations were interpreted with a view to building an analytical scheme.

- Methodological notes which are instructions to the researcher, reflecting tactics and reminders about methodological approaches which might be fruitful in the study.

- Personal notes contain the researcher's relations and reflections and experiences. Hence, the field notes give a comprehensive account of the participants, the events, discussions and feelings.

The researcher took notes as she was watching, listening and collecting information. During the interview, OMs were allowed to give their perceptions, point of view, experiences, concerns and what they wish to see being done. The loose notes were then converted to field notes immediately in order to maintain accuracy. Field notes gave a comprehensive account of the participants.

4.9 Validity and Reliability

Both quantitative and qualitative research approaches seek to find the truth but methods of ensuring validity and reliability in quantitative research are not appropriate in qualitative research approaches. Since the study uses mixed methods, validity and reliability will be discussed in terms of quantitative and qualitative research.

4.9.1 Validity

Validity means that the tool measures what it is supposed to measure. According to Bashir, Afzal and Azeem (2008:35) in qualitative research, validity means the extent to which data is plausible, credible and trustworthy. In this study, the questionnaire was designed to measure the management of rural ward-based PHC services for CCGs in UDM, while the interview schedule was used to interview Operational Managers. Twycross and Shields (2004:28) discuss measures to assess the internal and external validity of data collection tools and the researcher considered them as follows:

- Content validity was ensured by checking the questionnaire with the supervisor and it was approved by the Faculty Research Committee.
- Criterion validity was measured though a correlation coefficient. When the correlation coefficient was found to be high, the instrument was considered valid.

- Construct validity was measured by using different tests to compare results. For example, Chi-squared and Fisher's exact tests were used in data analysis. When the correlation coefficient was found to be high, the instrument was considered valid.

Threats to validity were controlled through the selection and assignment of respondents.

4.9.2 Reliability

Reliability in quantitative research refers to the degree to which the data collection method will yield consistent findings when a similar study is conducted. Hypotheses are tested and findings generalized, while in qualitative research reliability means accuracy, fairness, dependability and respondent validation. In this study, similar observations could be made or conclusions reached by other researchers (Saunders et al., 2003: 309). Chronbach's alpha will be used to measure internal consistency.

4.9.3 Measures to ensure trustworthiness in qualitative research approaches

Qualitative researchers are concerned with data quality and reflecting the true human experience. Below are an illustration and a discussion of various strategies of ensuring trustworthiness in both quantitative and qualitative approaches used in the study. (Lincoln and Guba 1985:317). Lincoln and Guba's model was followed for this section. According to Lincoln and Guba (1985:316), there is no validity without reliability and therefore involves the credibility and trustworthiness of research. The study used mixed methods of data collection in order to achieve trustworthiness. The next section discusses various strategies for ensuring trustworthiness in both quantitative and qualitative approaches.

4.9.3.1 Credibility (True Value)

True value or credibility refers to whether the researcher established confidence with the truth of the findings and the context in which the study was conducted. In qualitative research, the truth comes from the discovery of human experiences as they perceive and interpret them. The researcher increased credibility by ensuring

that the study presents accurate descriptions and interpretation of human experiences (Wiesma and Jurs 2005:50). The following strategies were used:

- **Prolonged and varied field experience**

The researcher has about 28 years of experience in the health department and therefore had more knowledge in the field. The respondents were also comfortable about providing accurate information. The researcher had three months to prepare for field work. Phenomenological interviews were conducted with seventeen operational managers until data saturation occurred and the researcher was convinced of the quality, richness and adequacy of data from the OMs (Wiesma and Jurs 2005: 50).

- **Referential adequacy**

The pilot test equipped the researcher to prepare for eventualities during the field work.

- **Reflexivity**

Wiesma and Jurs (2005: 50) define reflexivity as a process whereby the researcher explores personal feelings and integrates understanding into the study. Reflexivity is the assessment of the influence of the researcher's own background, perceptions and interests on the qualitative process. Field notes were recorded in order for the researcher to reflect on behaviour and experiences in the field.

- **Triangulation**

Triangulation refers to a number of methodological strategies in order to ensure enhanced credibility. The researcher used in-depth individual semi-structured interviews, observations and field notes for collecting data collection in order to increase confidence in the findings.

- **Member checking**

Information was checked with the respondents for confirmation. A tape recorder was used to capture interviews verbatim. The researcher conducted a literature review in order to link the findings of previous studies.

- **Structural coherence**

The WHO Health Systems Framework, OSS and PHC re-engineering model were used for evaluation of ward-based PHC services in UDM.

- **Observation**

The researcher carefully watched verbal and non-verbal communication in order to elicit more information and the implications thereof.

4.9.3.2 Applicability (Transferability)

According to Wiesma and Jurs (2005:50), applicability is defined as the degree to which the findings can be applied to other contexts and settings or with other groups. Operational managers working in clinics in rural wards were viewed as unique human beings in their own contexts and therefore findings could not be generalised. To increase transferability, the researcher ensured the following:

- Interviews were conducted in participants' natural settings which are the fixed and mobile clinics;
- Full descriptions of the perceptions of respondents were recorded. Themes and categories emerged from these full descriptions; and
- Each group was investigated and described in detail and the data described as accurate as possible.

A full description of background information, research context and setting was provided in chapter one, while a full description of methodology, literature review and verbatim quotes was provided in chapter one and two respectively.

4.9.3.3 Consistency (Dependability)

Wiesma and Jurs (2005:50), assert that consistency refers to dependability. Dependability refers to stability over time and conditions. Dependability is described as the consistency of findings when the study is replicated with the same subjects or in similar contexts. The researcher used the following strategies to enhance dependability:

- A detailed description of the research methods in chapter one;

- Triangulation was obtained by observations, field notes, transcripts of each interview and audiotapes;
- Code-recording procedures whereby a discussion between the researcher and the independent coder to reach consensus on themes and categories; and
- Stepwise replication is used to increase dependability.

4.9.3.4 Neutrality (Confirmability)

Confirmability refers to the degree to which findings of the study were not the biases of the researcher but the product of the focus of the enquiry. The researcher used the following techniques of confirmability in order to increase neutrality:

- **Reflexive analysis**

Through this technique, the researcher became aware of her influence on the data and the study. The researcher kept a record of field notes and reflected information about herself and the methods she used.

- **Triangulation Findings**

The researcher used various methods to test the reliability of data. Data was obtained from interviews, field notes and audiotapes. Triangulation was chosen in order to confirm the findings from semi-structured questionnaires administered to CCGs and the face-to-face interviews of OMs, that is, to validate quantitative results by qualitative studies. The second reason for triangulation was for completeness because the researcher would get an in-depth and wider understanding of the phenomena being studied. . Information obtained using data collection techniques was analysed in triangulation. Some data collected using a semi-structured questionnaire were analysed manually on a sheet of paper and some in MS-Excel software package and summarised in descriptive form.

- **Auditing of the research process and conformability audit**

The internal and external examiners audited the research process in order to arrive at conclusions about the data. Hence, research records would be kept safely for any future audit of the study.

During the deductive approach, the quality criteria of internal validity, external validity, reliability and objectivity were used to enhance trustworthiness. Validity refers to the accurate interpretability of the results (internal validity) and the generalisability of the research results (external validity).

4.9.3.5 Truth Value (Internal Validity)

The researcher established content validity by consulting with research experts on the representativeness and suitability of questions. Validity was tested during the pilot study and any gaps like unclear instructions or ambiguous questions were identified and rectified before the study (Saunders et al., 2009:308; Maree et al., 2010:37). The questionnaire was reviewed by experts (the promotor and co-promotor at the Durban University of Technology) to ensure internal validity. The questionnaires were also completed anonymously to increase internal validity.

4.9.3.6 Applicability (External Validity)

The researcher used rich descriptions of participants and contexts to ensure external validity and therefore increase generalisability. The questionnaire was used within the correct protocol by the researcher, following the random selection of the sample. The research was conducted in clinics where respondents worked and this enhanced external validity.

4.9.3.7 Consistency (Reliability) and dependability

Reliability is defined as the degree to which the data collection method will yield consistent findings; similar observations would be made; or conclusions reached by other researchers, that is, reliable data means that data will be same over time and place (Saunders et al., 2009:309; Wiersma and Jurs 2005:328). Reliability is the consistency of measurement. The researcher increased reliability by:

- Using technically correct and clear terms to exclude item bias from language and culture differences;
- Standardising administration procedure;
- Being aware of participants' bad behaviour, like agreeing or not to all questions. Hence, some items were formulated positively and others negatively; and

- Standardising the scoring procedure by using codes.

Therefore, it is anticipated that the study will yield reliable results that when the similar study is replicated, the results will be consistent.

4.9.3.8 Neutrality (Objectivity)

Neutrality involves little or no judgments by the person making the measurement. Operational definitions were given to enhance objectivity and objectivity increases reliability. Leading questions in the questionnaire, biased sampling and biased instruments were avoided by the researcher.

4.10 Data analysis and interpretation

Data analysis comprised of quantitative and qualitative data analysis for quantitative and qualitative data respectively. According to Creswell (2012: 34) quantitative data analysis refers to a "stage where the researcher, through the application of varied statistical and mathematical techniques, focuses on specific variables in the data set". Data analysis involves breaking down data into parts in order to obtain answers to the research questions. Data analysis enabled the researcher to organise, structure and elicit meaning from the collected data. Data analysis also enabled the researcher to generalise the findings from the CCG sample and OM sample for the study to the larger population of CCGs and OMs respectively. Data analysed was taken from the questionnaires, the transcribed interviews and the field notes.

- **Quantitative data analysis**

Quantitative data analysis focused on descriptive and inferential statistics. The descriptive statistical tools used included frequency tables, graphs and pie charts while inferential statistical tests involve the use of chi-square or correlation, t –tests and ANOVA. The researcher sourced the services of a statistician for the analysis of data. The Statistical Package of Social Sciences (SPSS) version 21 was used and open-ended questions were content analysed.

- **Qualitative data analysis**

The researcher read through several pages of narrative data from the OMs. The researcher tried to figure out meaningful information and segments of data that would be used for analysis in order to get a deeper understanding of the research topic. The OM submissions were then coded. Johnson, Dunlap and Benoit (2010:80) assert that a qualitative analysis would identify and examine concepts and themes that emerge from the data. Useful quotes would also be identified and recorded or copied to be used in the written report. A qualitative analysis would also identify contradictions between responses and data elements obtained from the quantitative analysis of CCG data. For example, CCGs that stated that “they were recruited by the programme coordinator instead of the community leaders”.

Raw data was sent to an independent coder who is experienced in qualitative research. Data was then coded and organise. Related concepts were grouped together in order to facilitate coding. Qualitative data analysis looked for themes and sub-themes. The themes and categories would then be discussed with the supervisor and the independent coder.

4.10.1 Role of the researcher

The researcher has more than fifteen years’ experience in management, mainly in District Health System and primary health care delivery. She has embarked on various post graduate studies and conducted various studies where she acquired extensive knowledge, skills and competences. During her coordination activities as the District OSS Chairperson, the researcher has experienced enormous social ills and health problems in UDM and saw the opportunity to undertake research in ward-based PHC services. The researcher was an active roleplayer, interacting with the participants during the study. The researcher was also responsible for keeping professionalism and upholding the ethics in research. The crucial roles included observations and active listening.

4.10.2 Role of the independent coder

The raw data was sent to an independent coder for analysis. The independent coder verified the results in order to increase objectivity and trustworthiness. Data

was therefore sent to an expert researcher in the primary health care field for further verification. The results were found to be similar to those of the researcher. The comparison of themes will be depicted in the appendix.

4.11 Ethical Considerations

Ethics are a set of moral principles initially suggested by an individual or group and then subsequently more widely accepted. Ethics offer rules and behavioural expectations about the most correct conduct towards, for example, experimental subjects and respondents, employers, sponsors, other researchers, assistants and students (Resnik 2011:1). The study was guided by ethical principles since the samples were human participants (that is, CCGs and OMs). Ethical clearance was obtained from the DUT Ethics and Biosafety Research Committee Review. The following ethical issues were taken into consideration:

4.11.1 Permission Letters

The researcher requested authority to conduct research in public hospitals in UThukela District from the Head of Department, attached as Appendix C**.** Another request letter of support was submitted to the relevant Hospital CEOs of UThukela District, attached as Appendix D.

- **Covering letters**

The researcher wrote covering letters to the respondents explaining the procedures and the reasons for undertaking the research. The covering letters were sent out with the questionnaires, attached as Appendix G.

- **Letters requesting CCGs and OMs to participate in the study**

Letters were written to CCGs and OMs, attached as Appendix C and Appendix D respectively.

- **Letter of informed consent and voluntary participation**

The researcher was dealing with human beings and therefore their rights had to be protected. The researcher sent out questionnaires with letters of informed consent. The letter of information and consent is attached as Appendix E.

4.11.2 Confidentiality and Anonymity

The data collection process will not involve access to confidential personal data, including access to data for purposes other than this particular research project without prior consent of subjects. Participants will be assured of anonymity and all the information of the study will be kept in confidence. The study data will be coded and therefore not linked to the participants' names. All study data will be kept in a secure place and participants' identities will not be revealed during the study or when publishing the results. The materials obtained will be stored and ultimately disposed of after 5 years in a manner that will ensure the confidentiality of the participants.

4.11.3 Risks or Discomforts to the Participant:

The participants will not be asked to perform any acts or make statements which might be expected to cause discomfort, compromise them, diminish self-esteem or cause them to experience embarrassment or regret. There are no foreseeable adverse reactions. The respondents were protected from any physical and/or emotional harm and were thoroughly informed in advance about the nature and purpose of the investigation. The respondents were told that if they felt discomfort during the answering of the questionnaire, they could withdraw from the process at any stage.

4.11.4 Research-related Injury

There was no anticipated injury to the participants as the participants were not required to perform any acts. Therefore, there will be no compensation.

4.11.5 Deceiving subjects

Babbie and Mouton (2009:525), state that a researcher should be sufficiently persuasive to get people to participate in a laboratory experiment or complete a lengthy questionnaire. There was no deception of participants.

4.12 Eliminating Bias

The researcher reduced interviewer bias by suspending her own beliefs and frame of reference. Information bias was reduced by using personal interviews and interview schedules and questionnaires.

4.13 Delimitations

Only three hundred and sixty-eight CCGs and seventeen OMs in UDM out of eleven District Municipalities were investigated. The following criteria were used to select the study participants.

4.13.1 Community Caregivers

- The participant must be contracted as a CCG.
- The participant must reside in a rural ward of the UDM.

4.13.2 Operational Managers

- The participant must be employed as an Operational Manager in Uthukela District Municipality.
- The participant must be working in a rural clinic, either fixed or mobile clinic.

4.14 Limitations

The study identified the following limitations:

- Participation was restricted to CCGs and OMs in rural clinics. An expanded research sample including WBOTs Family Health Teams (FHTs), Integrated School Health Teams (ISHTs) and district clinical specialist teams (DCSTs) and community structures like ward councillors and families, may have enriched the study;
- The sample size of OMs also posed a threat to validity. For example, the OM sample limits generalisations;
- The published research on the topic in South Africa was very limited and the researcher relied on research from other countries, experience and the study practical processes as they unfolded; and
- The duration of the study was a limitation. A year's monitoring and evaluation of ward-based PHC services may have given a different picture.

4.15 Conclusion

This chapter discussed the philosophical dimensions, research paradigm, research design and methodology including sampling, data collection and analysis, ethical

consideration and trustworthiness. The roles of the researcher and independent coder were also briefly described. The chapter ended by explaining how bias was eliminated, as well as and the limitations of the study. Chapter five presents the data analysis and findings.

CHAPTER 5: DATA ANALYSIS AND FINDINGS

5.1 Introduction

The aim of the study was to evaluate the management of rural ward-based primary health care in UDM in KwaZulu-Natal Province.

Chapter five includes the data analysis and findings beginning with an analysis of the quantitative data collected from 368 community care givers in rural wards in UDM. This section is then followed by the analysis of the qualitative data collected from 17 operational managers working in rural clinics in UDM. The results highlight the implications for practice and management processes of rural ward-based community care in the districts of KwaZulu-Natal.

5.2 Response Rate

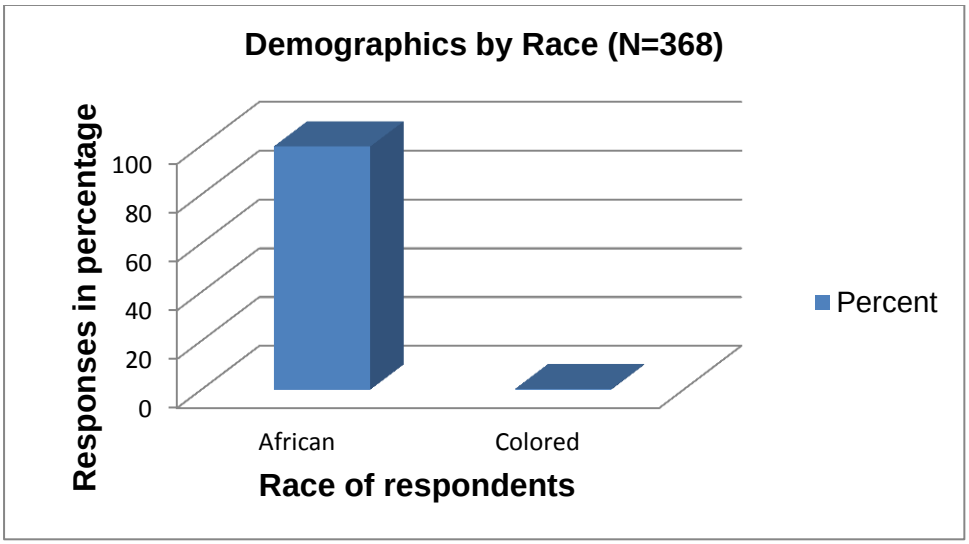
Questionnaires were sent to four-hundred CCGs and twenty OMs were invited for interviews. Data was obtained from the self-administered questionnaires completed by 368 CCGs (n=368) and interviews of seventeen operational managers (n=17), which is a 92% and a 85% response rate respectively. Therefore, both response rates were considered to be acceptable for the study as a fair representation of the management of PHC in the UDM.

5.3 Demographic information of the respondents

Part one of the questionnaire contained questions that required respondents to indicate demographic information. The demographic information is presented below using descriptive statistics.

Figure 5.1 below presents the demographic information with regard to race.

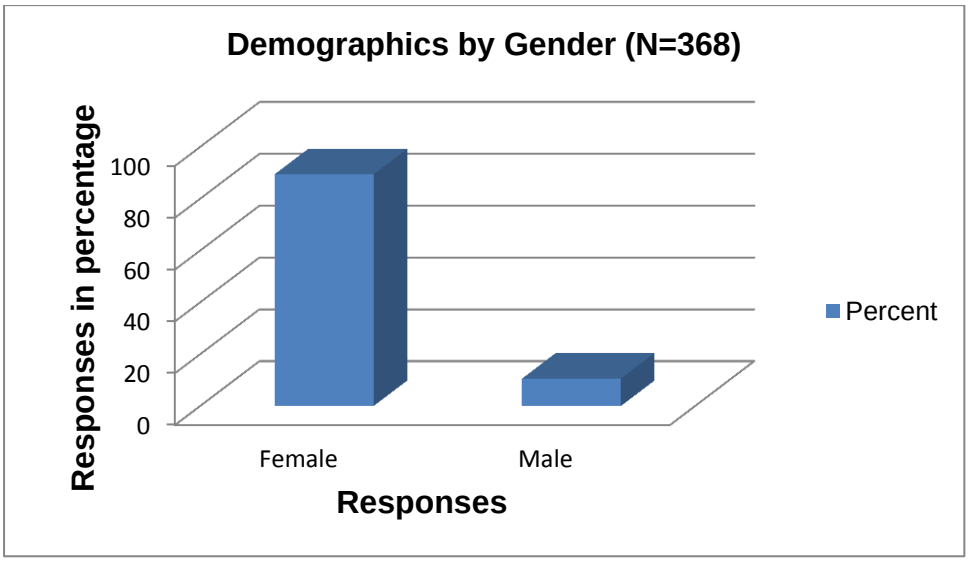
Figure 5.1: Demographics by race



Findings indicate that the majority of respondents (99.7%) were African while only 0.3% respondents were coloured. This is in accordance with the DoH policy on the selection of CCGs that clearly states that CCGs should be from the local area as they should have knowledge of the dynamics of the area, as well as the language and cultural practices of the communities served (KZN DoH 2004:2). In additon, all the rural municipalities within the District are inhabited by Africans.

Figure 5.2 below displays the gender of respondents.

Figure 5.2: Demographics by gender



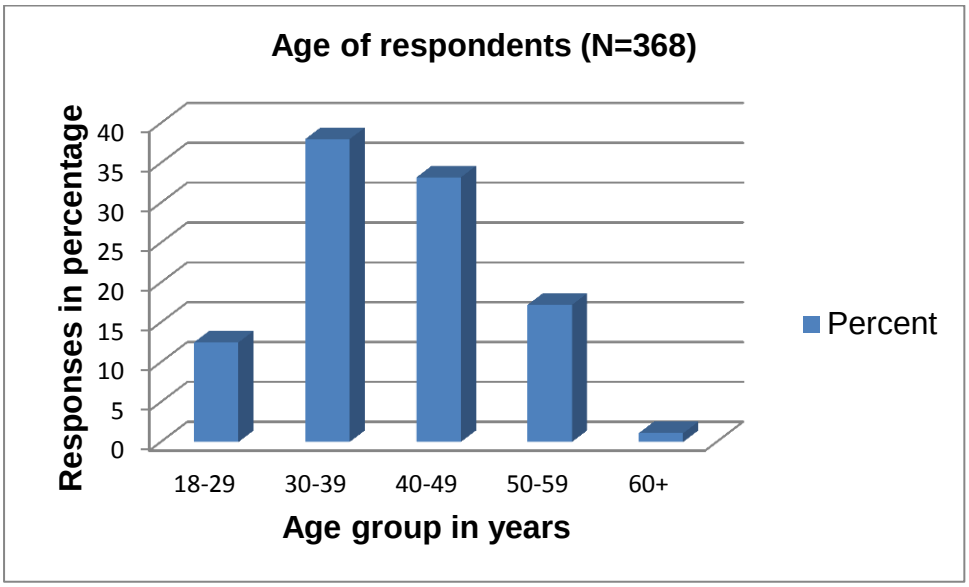
Of the 368 respondents, 329 (89.4%) were females while 39 (10.6%) were males. These results are consistent with the findings of a study in KwaZulu-Natal by

Ross (2011:14), where approximately 87% CCGs were female. Historically, the caring for the sick has been associated with females, though there are more males currently joining the health care professions. The department of health is one of the government departments which provide various job opportunities ranging from support staff to Allied Health Professions and clinical staff. This may attribute to the increased interest in health care by males.

5.3.1 Composition of the sample by age

The Figure 5.3 below indicates the age of the respondents.

Figure 5.3: Age composition of respondents



The findings indicate that the majority of the sample (38%) ranges between the ages of 30 and 39 years, while 33.2% of the sample was between the ages of 40 and 49 years. The findings also highlighted that older respondents (50-59 years) constituted only 15, 2% while those between 18 and 29 years were about 12.5% and those 60 years and above formed only 1.1% of the sample. The above results showed that the sample was representative of both the youth and adults though there was a low percentage of youth between 18-29 years of age.

5.3.1.1 Demographics by gender and age

Table 5.1 below illustrates the association between gender and age.

Table 5.1: Association between gender and age *(*N=368)

Gender * Age cross tabulation								
			Age					Total
			18 - 29	30 - 39	40 - 49	50- 59	60+	
Gender	Female	Count	43	125	105	52	4	329
		% within gender	13.1%	38.0%	31.9%	15.8%	1.2%	100.0%
	Male	Count	3	15	17	4	0	39
		% within gender	7.7%	38.5%	43.6%	10.3%	0.0%	100.0%
Total		**Count**	**46**	**140**	**122**	**56**	**4**	**368**
		% within gender	12.5%	38.0%	33.2%	15.2%	1.1%	100.0%

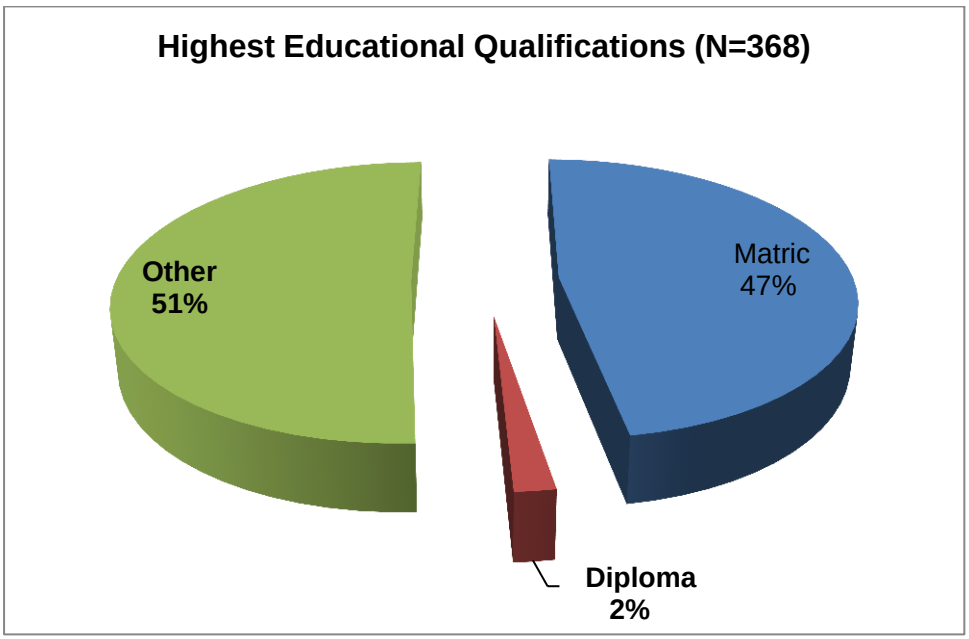
The researcher was interested in examining whether the distribution of age was different for females and males. Results showed that the majority of males (38.5%) fell between 30 – 39 years, while 38% of females were in the same age group. Forty-three percent (43%) of the males were between 40 and 49 years while only 31.9% were females in this group. Surprisingly, only 7.7% males and 13.1% females were between 18 and 29 years. The findings indicate that older respondents (50-59 years) constituted only 15, 2%, while those 60 years and above formed only 1.1%.

While the distribution was not ‘ideal’, there was an acceptable representation of both male and female CCGs in all the age categories, also indicating that males are becoming more involved in PHC which used to be female dominated previously. A study by Crispin et al (2012:80) reported that CCGs between 40 and 50 years kept the best records and that mature CCGs provided more effective counselling and client enablement. Therefore, the age group can be viewed as experienced and mature in community health care.

5.3.1.2 Composition of the sample by highest educational qualifications

Figure 5.4 below illustrates the distribution of educational qualification of respondents.

Figure 5.4: Educational Qualifications



According to Figure 5.4 above, only 47% of the CCGs had a matric (Grade 12) while the majority of respondents (51%) had lower levels of education, ranging between the old Standard 9 and adult education and training (equivalent to Grade 11). The proportion of CCGs with a national diploma was 2%.

The level of education is often associated with better understanding of information, therefore clarifying issues easily and addressing health issues better (Moetlo, Pengpid and Pelzer (2011:4). CCGs are responsible for diverse duties requiring high levels of literacy which are associated with better oral and written communication and the ability to convince clients so that they can adopt evidence-based health care practices (Crispin et al 2012: 82). It is in this context that those CCGs having a higher education level will better understand and easily make diagnosis of common illnesses at a household or community level.

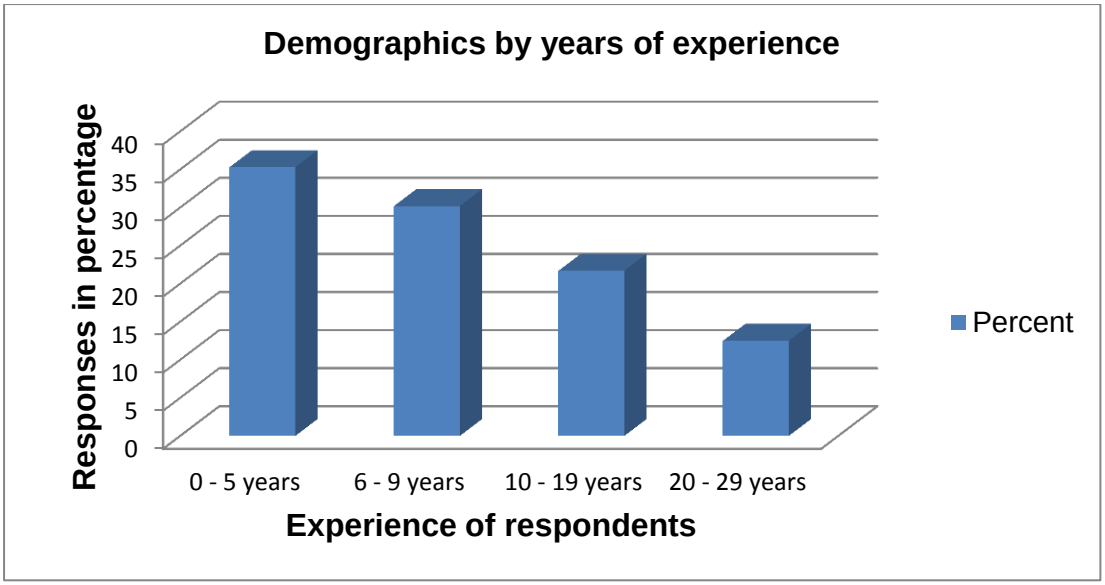
Due to the higher proportion of respondents with primary education, access to higher level information could be more difficult, adversely affecting the quality of PHC offered. For example, the changing disease profile and increased scope of

CCGs require them to administer vitamin A to babies as well as postnatal care (6 days, 6 weeks and 6 months) which requires higher levels of cognitive skills. Educational qualifications could also be used to plan and implement capacity development programmes for CCGs.

5.3.1.3 Demographics by years of experience

Figure 5.5 below presents the years of experience of respondents.

Figure 5.5: Years of experience of respondents *(*N=368)



The results showed that approximately 35% of the 368 respondents had about 5 years or less experience as CCGs; while 30, 2% fell between 6 and 9 years; 22 % (10-19 years); and only 12, 5% of respondents had 20 to 29 years of experience. The findings indicate that the larger proportion of respondents has less than ten (10) years of experience in ward-based PHC services. Generally for effective PHC services, the higher the number of years of experience, the higher the performance of the CCG should be and therefore communities should receive better service.

It is anticipated that due to the years of experience, the respondents will be well versed in the activities of ward-based PHC in rural wards since the years of experience are often associated with learning and development to provide health care services.

5.3.1.4 Demographics by years of experience and age

A Pearson's correlation analysis was applied to identify association between experience and age. The results are shown in Table 5.2 below.

Table 5.2: Association between experience and age (N=368)

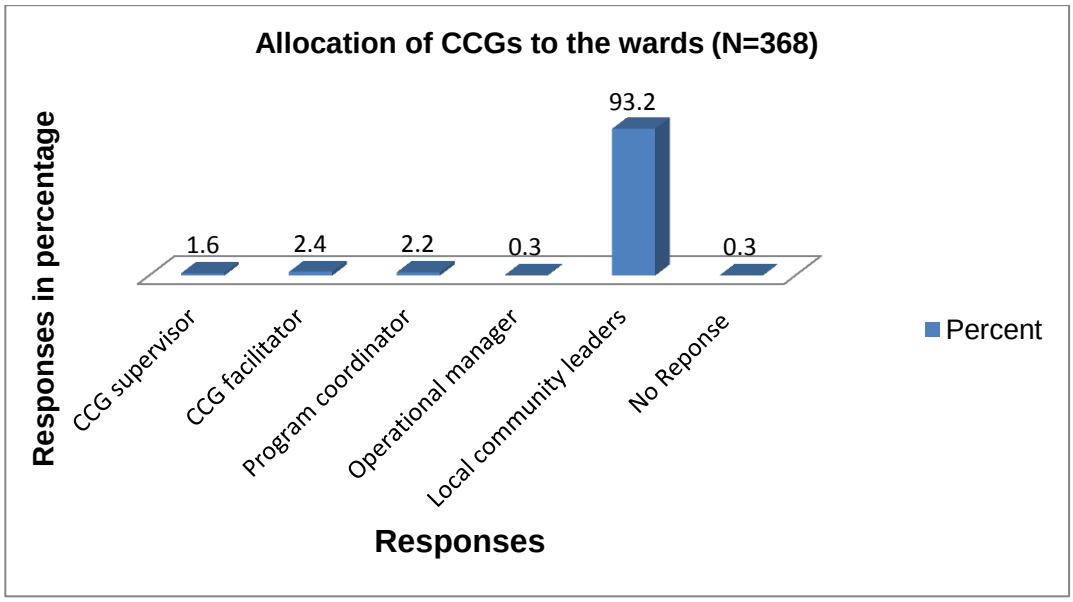
Correlations			
		Age	**Experience**
Age	Pearson Correlation	1	.467**
	Sig. (2-tailed)		.000
	N	368	368
Experience	Pearson Correlation	.467**	1
	Sig. (2-tailed)	.000	
	N	368	368
**. Correlation is significant at the 0.01 level (2-tailed).			

The results show that there is a significant positive correlation between age and experience (r(N=368) = .467, p<.0005). It can be interpreted from this result that older CCGs have more experience. This view is supported by Tulenko et al (2013:3) who state that CCGs required diversified training over a period of time in order to enable them to fulfil key roles and tasks and keep them at the community level. A similar trend has been found in UDM after CCG training was undertaken by BroadReach in 2013 (Department of Health, 2014: 9).

5.3.1.5 How were you allocated to the ward?

Figure 5.6 below indicates the allocation of CCGs to the wards.

Figure 5.6: Allocation of CCGs to the wards



The findings show that the majority of respondents (93, 2%) were allocated to the ward by their own local community leaders; 1.6% by CCG supervisors; and only 2.2 % were allocated by the programme coordinator; while 2.4% was allocated by a facilitator and only 0.3% was allocated by operational managers.

Therefore, the active participation of community leaders and the correct implementation of the selection policy of the Department of Health have been undertaken. The significant engagement of local community leaders in rural areas should enhance the participation of community members in PHC activities.

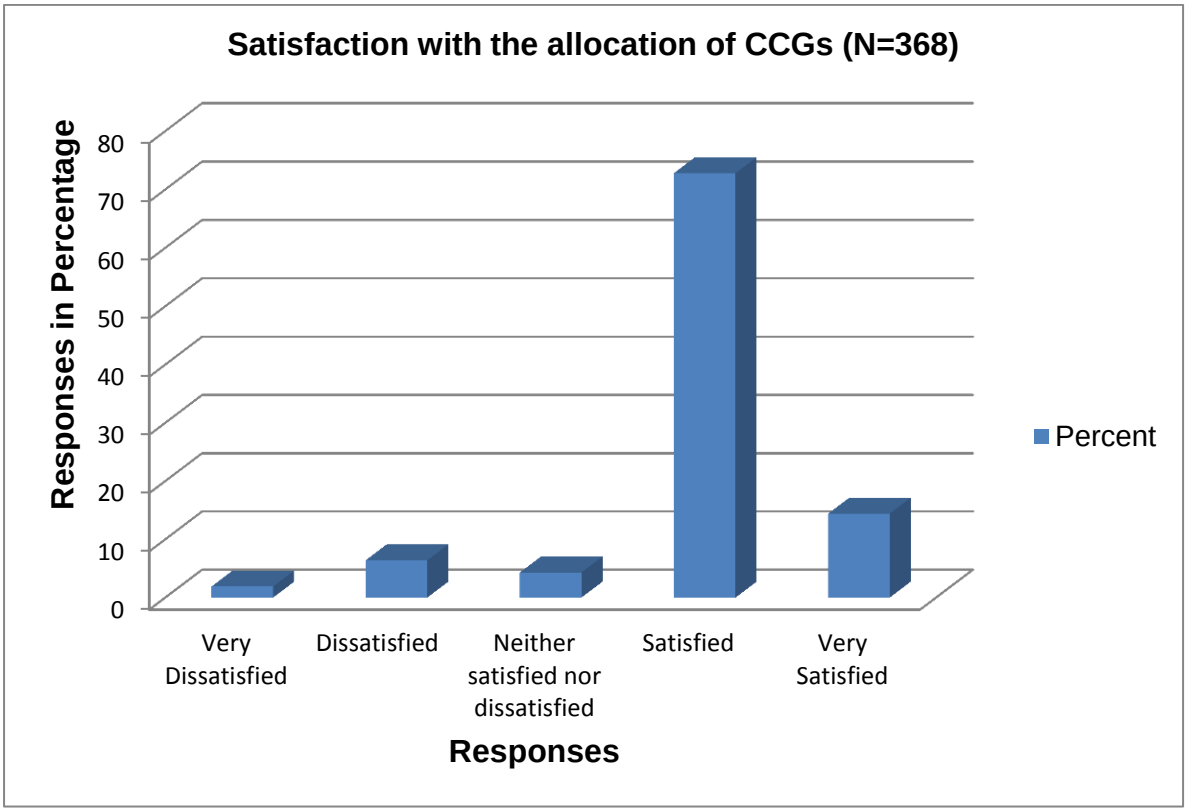
5.3.2 CCG relevant issues for respondents (Part Two of the questionnaire)

Part two required respondents to score, on a scale of 1-5, the responses they considered relevant. Frequency tables will be provided for each of the following questions. The inferential analysis will then be applied in the form of chi-square goodness of fit tests to ascertain whether response options were selected equally or if one response option was selected significantly more often than the others. Question one required respondents to indicate their satisfaction with the selection and allocation of CCGs.

5.3.2.1 How satisfied are you with the allocation of CCGs?

This section discusses findings for the above question. Figure 5.7 below is a graphical representation of satisfaction with the allocation of CCGs (N=368).

Figure 5.7: Satisfaction with the allocation of CCGs



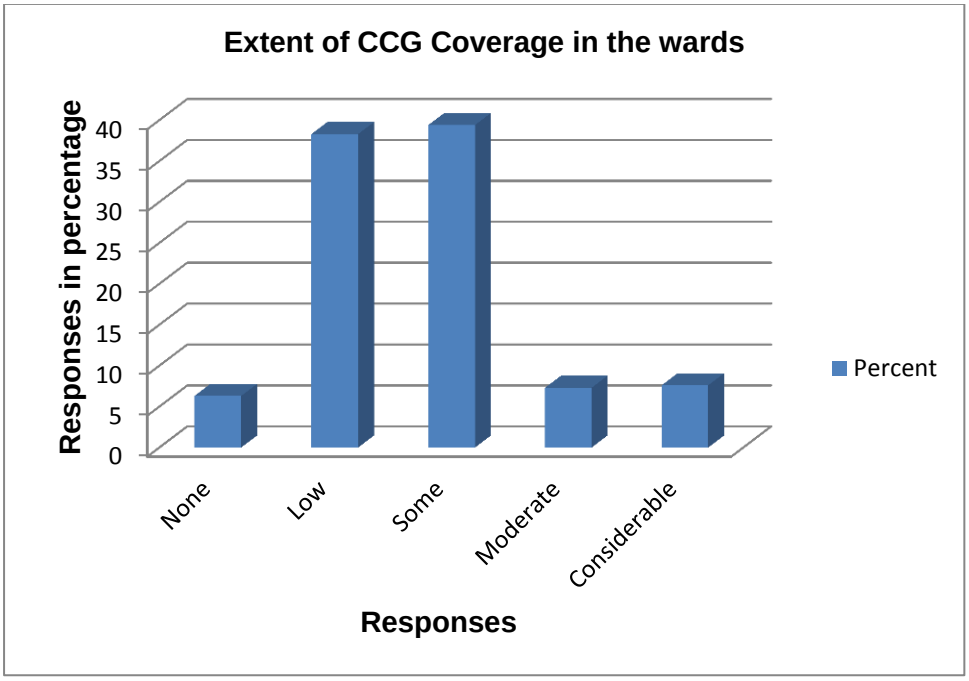
The respondents were required to indicate if they were satisfied with the allocation of CCGs to the wards. The majority of respondents (72.8%) indicated satisfaction with the allocation and these findings are in line with the majority of respondents (93.2%) who were allocated by community leaders.

Procedurally, the CCGs should be selected in a public meeting and then allocated to a particular area or village in the ward (KZN 2014:4). It can be seen from the results that the respondents were satisfied with the allocation to the wards. Therefore, the results indicate that the allocation criteria is being implemented in most wards since the CCGs, once selected, must be allocated to their local areas (KZN 2014:4) as they better understand the community health and social issues, as well as the cultural practices in the area.

5.3.2.2 Question two: How do you view the extent of CCG coverage in the wards?

Question two required respondents to indicate their views on the extent of CCG coverage in the wards. The responses are indicated in Figure 5.8 below.

Figure 5.8: Extent of CCG coverage in the wards



Approximately 6.3% indicated no coverage whilst about 38.7% indicated that ward coverage was low. About 39.8% indicated that there was some coverage whilst 7.3% indicated a moderate coverage. Only 7.6 % respondents indicated there was a considerable coverage in their wards.

During household visits in Durban the KZN Premier, Senzo Mchunu (2015:2), emphasised that CSGs visit a set number of households where a key informant, usually the household head, provides information on individuals, household and community needs. However, the ratio 1:50 in rural and 1:80 urban wards (DOH 2015:4) is not met due to an inadequate number of CCGs. The shortfall in coverage could also be attributed to National Treasury budget cuts for the past three financial years.

It was confirmed by the comments from some of the respondents that they are unable to visit 60 households as they at times engage in doing washing or cleaning the house for patients. Other factors affecting coverage include exiting CCGs due to deaths, fulltime employment and other career prospects.

Table 5.3 below indicates a correlation between satisfaction with the allocation of CCGs to the wards and CCG coverage.

Table 5.3 Satisfaction with allocation and CCG coverage (N=364)

Correlations			
		q1 How satisfied are you with the selection and allocation of CCGs?	**q2 How do you view the extent of CCG coverage in the wards?**
q1 How satisfied you are you with the allocation of CCGs?	Pearson Correlation	1	.208**
	Sig. (2-tailed)		.000
	N	368	364
q2 How do you view the extent of CCG coverage in the wards?	Pearson Correlation	.208**	1
	Sig. (2-tailed)	.000	
	N	364	364
****. Correlation is significant at the 0.01 level (2-tailed).**			

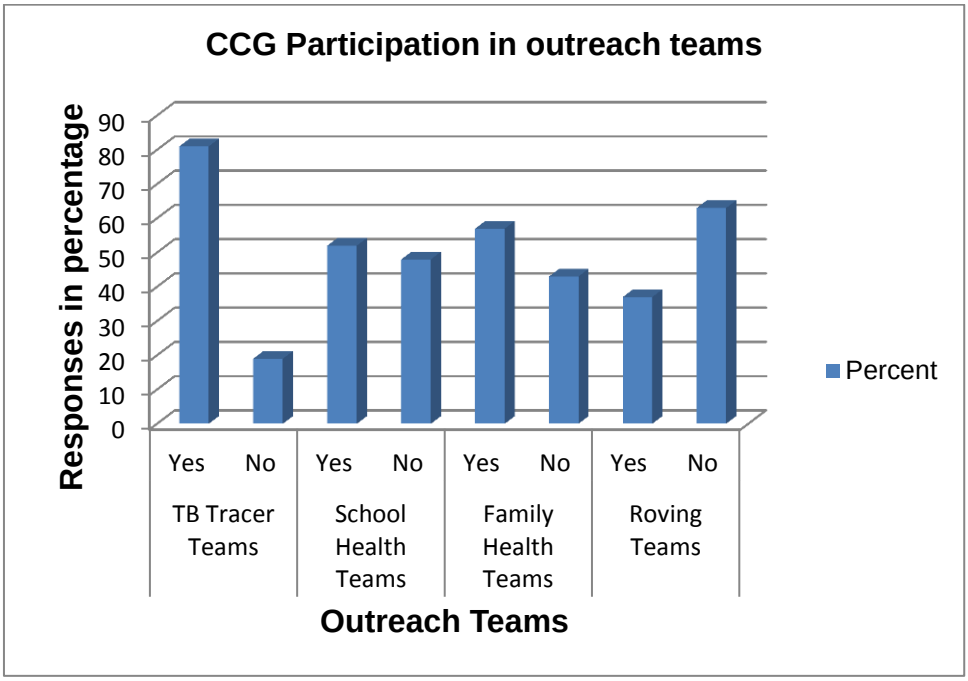
The results show that there is a significant positive correlation between selection and allocation and CCG coverage (r (N=364) =.208, p<.0005). The criteria for selection of CCGs are that they are within the community and that they are selected at a community meeting. It means that the CCG is well known, speaks the language and fully understands the habits and the culture in the community. It is anticipated that such a fieldworker will be sensitive to the needs of the community and better care for them (KZN DoH 2004:4 and PHC Supervision Manual 2013:7).

5.3.2.3 Question Three: Please indicate your participation in PHC Outreach teams

Question three required respondents to indicate their participation in PHC outreach teams. For this section, analysis was done on each of the elements of PHC

outreach teams and Figure 5.9 below represents the participation of CCGs in each of these PHC outreach teams.

Figure 5.9: Participation in PHC Outreach teams



Respondents were required to indicate their participation in outreach teams. The results show that the majority of respondents (81%) were participating in TB Tracer teams while only 52% participated in school health teams. The results also show that 57% of respondents participated in family health teams and very few respondents (37%) participated in roving teams. This reflects an unequal distribution and allocation of CCGs in PHC outreach teams for the wards.

The referral system starts at an individual or household and community level that is the war room level to the clinic (fixed or mobile) where the clinical nurse practitioner assesses, diagnoses and treat minor ailments. Should the patient need a higher level of care at the CHC or district hospital level, the clinical nurse will refer accordingly. Community care givers form part of the PHC outreach teams, currently known as ward-based outreached teams (WBOTs).

Mann Whitney U tests were also carried out to see whether the referral rating in question three above was different for those who DO and those who DON'T participate in the particular outreach team. The Wilcoxon Signed Ranks test was

used to test whether the average value is significantly different from a value of 3 (the central score) and also to compare the distributions of two variables. In this study, the variables are participation in each outreach team and management of referrals to clinics. The Mann Whitney U and the Wilcoxon W tests compared the CCG and OM independent groups based on a single variable. For example, management of referrals and participation in PHC activities, namely profiling, referrals, community dialogues and behavioural change campaigns.

Table 5.4: Participation in PHC outreach teams and management of referrals

Group Statistics: q4 Please rate the management of referrals by your clinic.					
PHC Outreach Teams	**Responses**	**N**	**Mean**	**Std. Deviation**	**Std. Error Mean**
TB Tracer Teams	Yes	296	4.28	1.169	.068
	No	67	3.09	1.881	.230
School Health Teams	Yes	188	4.65	.909	.066
	No	175	3.42	1.555	.118
Family Health Teams	Yes	208	3.78	1.477	.102
	No	155	4.43	1.206	.097
Roving teams	Yes	135	4.47	1.098	.095
	No	228	3.81	1.506	.100

- **TB Tracer teams**

The findings indicate that an average score in the CCG sample and by inference the population as a whole is 4.28 (M=4.28) at the standard deviation of 1.169 (SD=1.169). Analysis shows that those who do participate in TB tracer teams rate the management of referrals significantly better/higher than those who do not participate in the team (Z(N=363) = -4.893, p<.0005). The mean score of above 3 means that the CCGs do participate in TB tracing.

- **School health teams**

The results regarding school health teams indicated an average score of above 4.65 (M=4.65) at a standard deviation of .909 (SD= .909). Findings indicate that those who do participate in school health teams rate the management of referrals significantly better/higher than those who do not participate in the team (Z(N=363) =

-8.738, p<.0005). Procedurally, the school health teams pupils assessed at quintile 1 and 2 schools will be referred either to a clinic or hospital for better clinical care.

- **Family health teams**

The findings indicate an average score of above 3.785 (M=3.78) at a standard deviation of 1.477 (SD= 1.447). Analysis shows that those who do participate in family health teams rate the management of referrals significantly better/higher than those who do not participate in the team (Z(N=363) = -4.888, p<.0005). Therefore, it means CCGs should actively participate in family outreach teams for early detection of illnesses, referral and prompt treatment.

- **Roving teams**

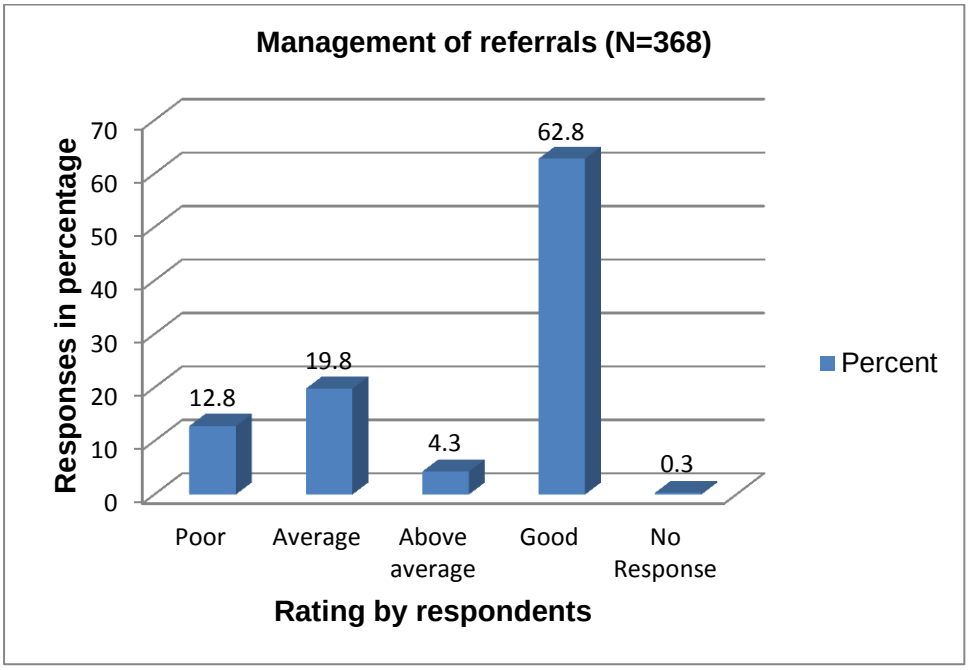
The same referral system will apply for the roving teams. The findings indicate an average score of above 4.47 (M=4.47) at a standard deviation of 1.098 (SD= 1.098). Analysis shows that those who do participate in roving teams rate the management of referrals significantly better/higher than those who do not participate in the team (Z(N=363) = -4.406, p<.0005). It means that as the roving teams go out to communities they assess diagnose and refer clients accordingly, especially because they brought services closer to the patient as opposed to the client coming to the clinic.

As can be seen from the preceding discussion, ward-based outreach teams are key to the management of ward-based primary health care.

5.3.2.4 Question Four: Management of referrals by your clinic

Figure 5.10 below highlights the management of referrals by the clinics.

Figure 5.10: Rate the management of referrals by your clinic



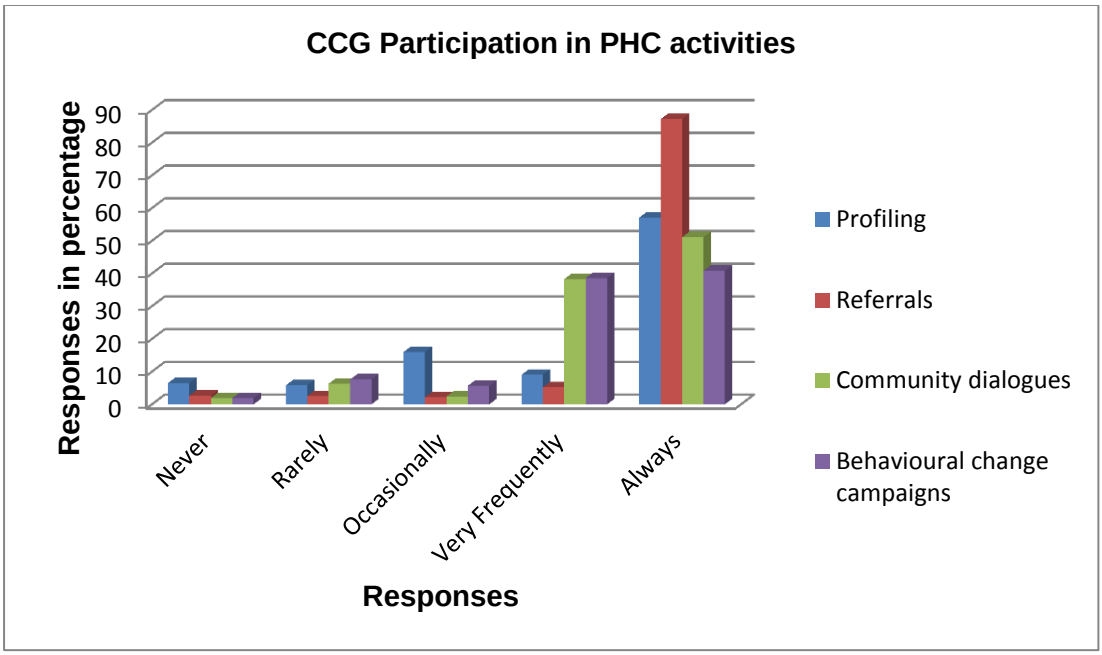
The findings show that the highest proportion of respondents (62.8%) rated the management of referrals by their clinics as good while only 12.8% of respondents rated these as poor. The findings also indicate that 19.8% of respondents rated the management of referrals as average while only 4.3% rated this as above average.

The findings also correspond with the findings of a study by Torrest et al (2011:4) that CCGs should have been trained on home visits so that proper assessment is done and the referrals are managed so that the client receives prompt care. It means that the district management should identify the bottlenecks in the implementation of the referral system policies and procedures and address these in view that patients should be referred to the next level of care as required by his/her condition. Early referral contributes to early diagnosis and treatment and thereby improves health outcomes.

5.3.2.5 Question Five: Please indicate your participation in the following activities of PHC

Figure 5.11 below indicates CCG participation in PHC activities.

Figure 5.11: CCG participation in PHC activities



The above results show different responses to the participation in PHC activities, namely profiling, community dialogues and behavioural change campaigns.

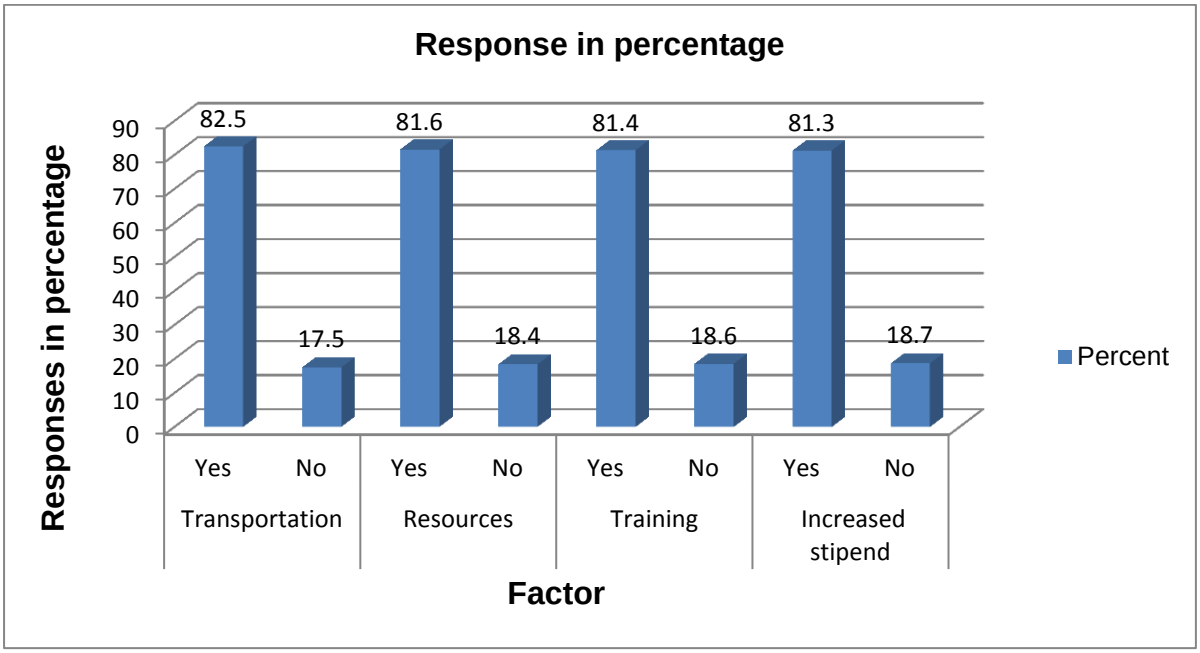
For the purpose of analysis, the high responses will be discussed in comparison with the low responses in view of the interpretation of the results and to guide the recommendations of the study. The majority of respondents (87.2%) were always participating in referrals, whilst 2.7% never participated in referrals. Profiling was always done by at least 57.1 % of respondents. About 6.5% never participated in profiling; whilst 5.8% rarely participated; and 16% occasionally participated whereas 9% of respondents very frequently participated in profiling.

Approximately 51.1% participated in community dialogues whilst 40.8% participated in behavioural change campaigns. A considerable proportion frequently participated in community dialogues (38.3%) and behavioural change campaigns (38.6%). Surprisingly a small proportion of respondents (1.9%) never participated in both community dialogues and behavioural change campaigns. Those that rarely participated in community dialogues and behavioural change campaigns were about 6.3% and 7.6% respectively.

Meanwhile, the District Health Barometer (2013/14: 471) found that social ill were a problem in UDM, namely HIV/AIDS, teenage pregnancy and substance abuse. Profiling involves the assessment of individuals and communities. It is the basis to the identification of the health problem; identification of the appropriate intervention; and referral to the appropriate level of care. Community dialogues and behavioural change campaigns are important in addressing these. It is worrisome that some CCGs do not participate in these key PHC activities due to a lack of training and/or high workload.

5.3.2.6 Question Six: Please rank the factors that would enable you to be more productive.

Figure 5.12: Please rank the factors that would enable you to be more productive



Respondents identified all four factors as crucial for CCGs to be more productive. Ranked as very important was transportation (82.5%), resources (81.6%), training (81.4%) and increased stipend (81.3%). These results indicate the importance of availing these resources in order to increase the productivity of CCGs.

CCGs frequently travel long distances in adverse weather conditions and transport will assist them to reach the homes earlier and possibly visit families in one day. Similarly, they need resources especially materials like gloves, bandages and disposable towels. They also need training in various skills to increase their scope

of work in task shifting. An increased stipend was also identified by respondents as an incentive and also as compensating them in recognition of their work.

An analysis was also conducted for the mean and the standard deviation from the mean. The standard deviation was used to measure how significantly different the four variables, namely transportation (Mean= 4.55; SD=.948); resources (Mean= 4.74; SD= .831), training (Mean= 4.86; SD=.496); and increased stipend (Mean= 4.77; SD=.948) were from one another. The findings show a difference in the means of less than 0.05 and 0.01, which illustrates that the differences are statistically significant.

Tulenko et al (2013:3) argue that CCGs do not have career opportunities and professional associations. Therefore, their benefits are short-lived, meaning that there is no sustainability. Programmes such as nurse training, nutrition advisor and clinical associate programmes need to be scaled up for CCGs in order to develop ward-based outreach teams. Health systems need to incorporate CCGs in such a way that the quality, coverage and impact of PHC to the community are achieved.

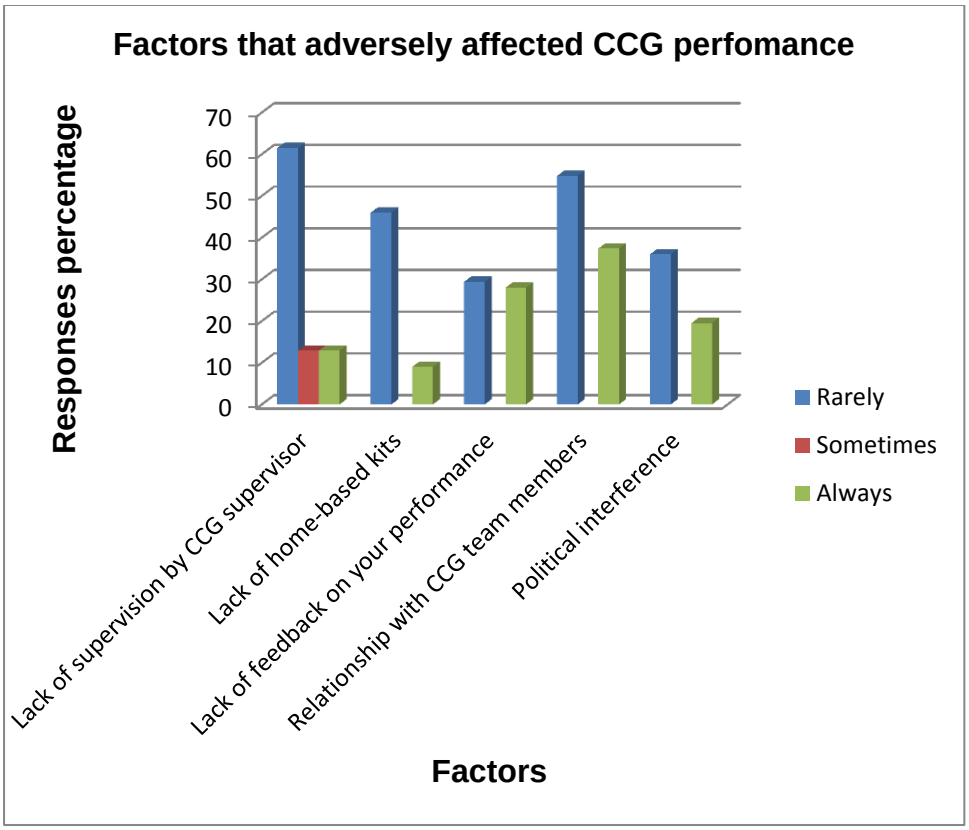
The above findings were also consistent with the findings and views of previous studies by Perry, Zulliger and Rogers (2014:412) who proposed that health systems should also look at training, supervision and logistical support for CCGs. However Moetlo, Pengpid and Pelzer (2011:5) are of the opinion that caregivers were receiving adequate training and that new CCGs needed refresher courses and management skills for supervisors. The Human Resources for Health Strategy (HRH Strategy 2012/13 – 2016/17:10) also prioritises the supply; training and development; and the working environment for health care workers in preventive and promotive competencies.

5.3.2.7 Question Seven: Factors that adversely affect your performance

Question seven required respondents to identify the factors that adversely affect CCG performance**.** The factors included a lack of supervision by the CCG supervisor; the lack of home-based kits; a lack of feedback on performance; relationships with CCG team members; and political interference by ward councillors.

Figure 5.13 below highlights the factors that adversely affect CCG performance.

Figure 5.13: Factors that adversely affect CCG performance



Respondents were required to indicate, on a five- point Likert scale, factors that adversely affected their perfomance. These included political interference; relationships with CCG team members; lack of feedback on your performance; lack of home based kits; and lack of supervision by CCG supervisor. For the purpose of analysis, only results on the three ratings will be presented, namely, rarely, sometimes and always.

The majority of respondents (61.5%) indicated that the lack of supervision by CCG supervisors never adversely affected their performance; 25.6% indicated that this sometimes adversely affected their perfomance whereas only 12.9% stated that a lack of supervision by CCG supervisor always adversely affected their performance. Higher proportions of respondents (46%) indicated that the lack of home-based kits rarely adversely affected their performance, whilst 45% of respondents stated that this sometimes adversely affected their performance. Only 9% identifed that the lack of home-based kits always adversely affected their performance.

Lack of feedback on performance always adversely affected the performance of 28% of respondents, whilst this sometimes adversely affected the performance of 42.6% of respondents. The results also show that about 29.4% of respondents were rarely adversely affected by a lack of feedback on their performance.

Furthermore, the majority of respondents (54.8%) indicated that the relationship with CCG members rarely affected their performance, as opposed to 37.4% who indicated that this variable affected their performance. About 44.5% identified that political intereference was sometimes adversely affected their performance, whilst it rarely affected some repondents (36%). It always affected only 19.5% of respondents.

It is imperative that the environment is conducive for any worker to deliver. This environment refers to good working relationships; the availability of working equipment; and tools and effective supervision and monitoring. These factors are critical for CCGs to deliver services as expected. For instance the home-based kits are tools to use when visiting homes. The CCG cannot be expected to attend to critically ill individuals at home without gloves. The leaders and communities must support CCGs in performing their work. CCG programmes cannot be successful unless they receive support and active participation from health management, political leadership within local municipalities and communities.

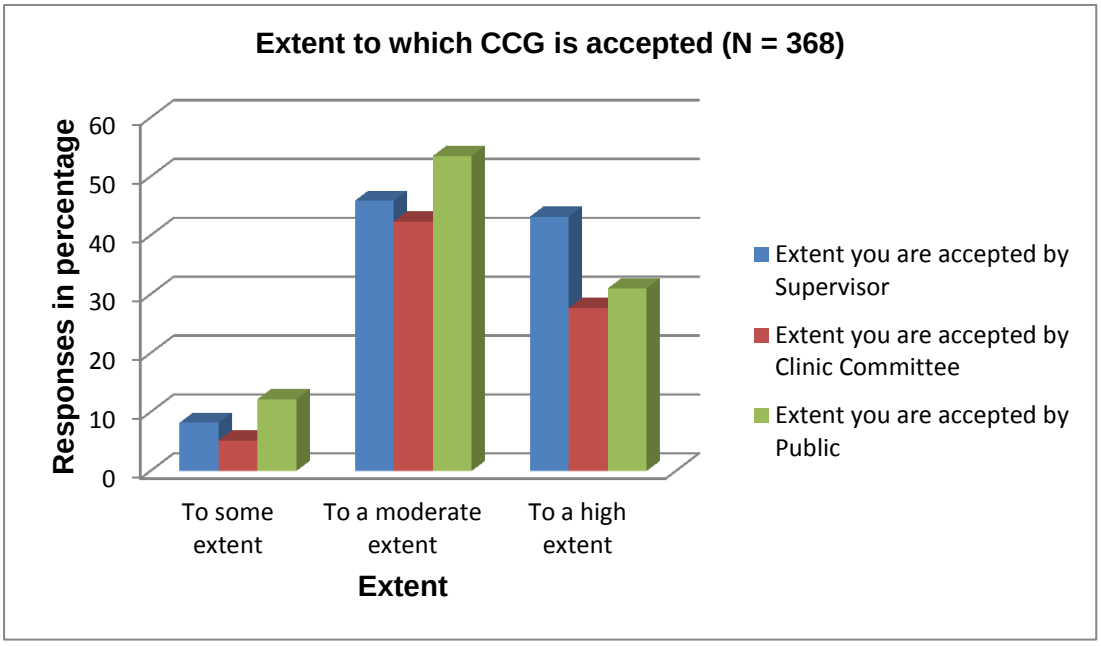
There is a need for management and local municipality leadership to appreciate the role played by CCGs and to consider these factors. Management at all levels should ensure that adequate supplies like home-based kits are available. The implementation of performance management systems need strengthening and CCGs must be given feedback on performance. This might serve as a motivation and any challenges must be identified and overcome. Lack of supervision was also indicated as adversely affecting the performance of respondents. Hospital management and operational managers are tasked with the effective supervision of CCGs. The ward councillor or the traditional leader is an OSS champion and must therefore support all service delivery activities in the ward, as opposed to the political interference indicated by respondents.

Mathfield (2010:25) and the OSS Implementation Model (2011:34) also assert that these factors are required to enable CCGs to perform effectively. However there are some challenges with regard to councillors who feel that CCGs should be taking instructions from them and that they should report to them. In essence, the councillors are political champions in the wards where CCGs do household profiling, interventions and refer also to the clinic or other government departments, like the Department of Social Development (OSS Implementation Model 2011: 35).

5.3.2.8. Question eight: To what extent are CCGs accepted by supervisor, clinic committee and public?

Figure 5.14 below indicates the extent of acceptance of CCGs by the supervisor, clinic committee and public.

Figure 5.14: extent to which CCGs are accepted by supervisor, clinic committee and public



This question required the respondents to indicate the extent of acceptance of CCGs by the supervisor, clinic committee and public on a five- point Likert scale. The majority of respondents identified a moderate extent of acceptance by the supervisor (45.9); clinic committee (42.4%) and public (53.5%). Meanwhile, 43.2% of respondents indicated that the supervisor accepted them to a high extent whilst 27.7% and 31% identified the clinic committee and the public respectively. A small

proportion of respondents (1.6%) indicated that the supervisor and the public were not accepting them at all.

The extent of acceptance of CCGs by the supervisor, clinic committee and public is critical for the performance and support of CCGs. Acceptance determines the cooperation and support that CCG receive from the seniors and the community. The PHC Supervision manual requires the supervisor to monitor if CCGs are accepted by the community and if they are given regular support (DOH, 2013:7.8). It could be perceived that CCGs are well accepted by the public as the majority would have been selected by members of the community.

Unexpected situations do occur at times. For example, in 2014 one CCG reported being chased away by the community. When following the matter up, it was found that she was disliked by the community because she was rude and divulged their diagnoses to the community. Table 5.5 below indicates a significant correlation between satisfaction with selection and allocation of CCGs and acceptance by the supervisor, clinic committee and public.

Table 5.5: Extent to which CCGs are accepted by supervisor, clinic committee and public

Correlations

		q1 How satisfied are you with the selection and the allocation of CCGs?	q8.1 Supervisor	q8.2 Clinic Committee	q8.3 Public
q1 How satisfied are you with the selection and the allocation of CCGs?	Pearson Correlation	1	-.019	-.064	.047
	Sig. (2-tailed)		.725	.228	.372
	N	368	362	359	362

****. Correlation is significant at the 0.01 level (2-tailed).**

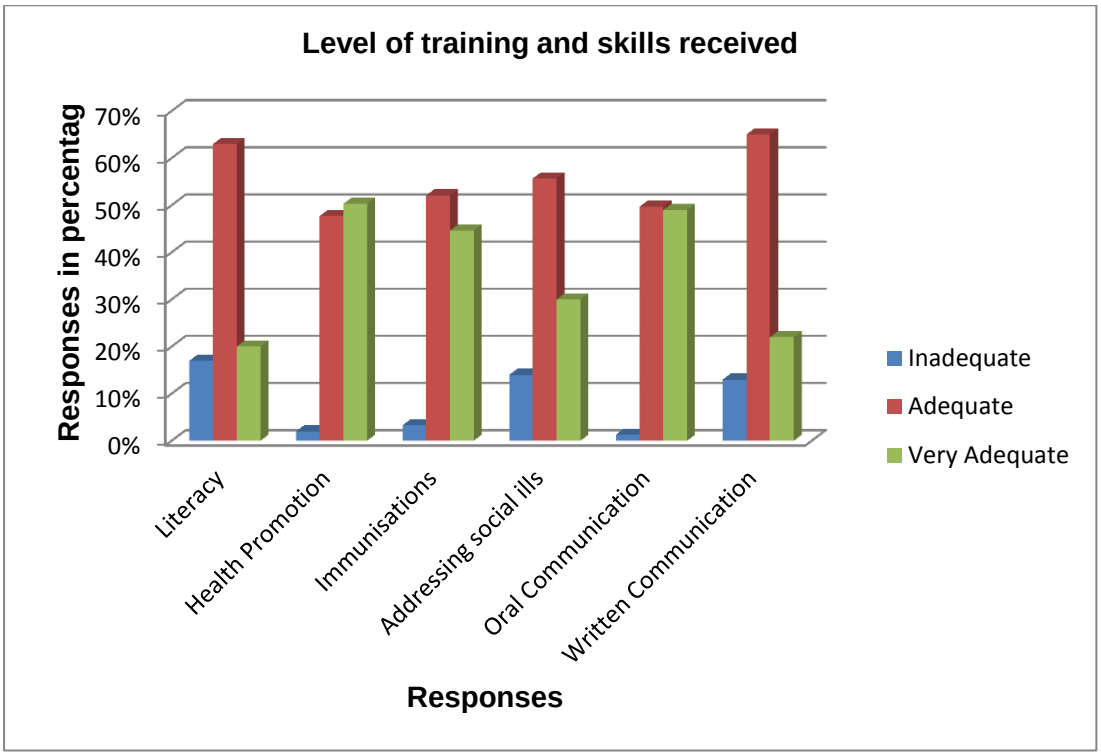
However, Torrest et al (2011:1) identified critical factors that influence the overall performance of CCGs as clear performance standards; reasonable workloads; training; career development; provision of resources; and monitoring, including supervision. Community participation should not be viewed as political interference as it hampers the performance of CCGs. O'Brien et al (2010:182) argue that CCG

burnout can be prevented by the provision of realistic expectations of the work of CCGs and demonstrating high respect for CCGs for reaching out to underserved communities. Therefore, the findings have value for this study.

5.3.2.9 Question nine: Level of training and skills received in enabling CCGs to adequately do their work

Figure 5.15 below shows the responses on the level of training and skills received in enabling CCGs to adequately do their work.

Figure 5.15: Level of training and skills received in literacy, health promotion, immunisations, addressing social ills, oral communication and written communication



Question nine assessed the level of training and skills received in enabling CCGs to adequately do their work. It was necessary to test a number of variables in order to identify whether or not significances or differences existed.

For the purpose of this analysis the discussion will focus on a rating scale of three. About 63 % of respondents indicated that literacy training was adequate, whilst 20% indicated that literacy training was very adequate. Approximately 17% of respondents stated that literacy training was inadequate. Health promotion was also

identified as adequate and very adequate by 47.7% and 50.3% of respondents respectively, whereas only 2% indicated that training in health promotion was inadequate. Similarly, about 52.1% of respondents indicated that the level of training in immunisations was adequate, while 44.6% identified this level of training and skills as very adequate.

There were varying responses on addressing social ills, oral and written communication. Very low proportions of respondents indicated an inadequate level of training in addressing social ills, oral and written communication, namely 14%, 1.3% and 13% respectively. Surprisingly, the majority of respondents identified adequate and very adequate levels of training in these areas, namely 55.7%, 49.7% and 65% respectively while about 30%, 49% and 22% of respondents indicated very adequate level of training in addressing social ills, oral and written communication respectively.

The results illustrate an inequitable implementation of training within the rural wards which will negatively impact on CCG performance. Though CCGs use the local language (e.g. IsiZulu) when interacting with rural communities, the assessment tools they use are in English. Therefore, if literacy training is inadequate it might be difficult for CCGs to accurately implement the assessment tools resulting in incorrect information and interventions to clients.

These findings illustrate that less attention is put on CCG training and skills development. This view is supported by Malan (2012:4) when she stated that in Brazil, Ethiopia and Pakistan, CCGs form part of the public health system and receive comprehensive training. The same view was found during the literature review in chapter two and the evaluation of international and Sub-Saharan Africa PHC services in chapter three. Upscaling CCG training and skills enable CCGs to be on par with the increasing disease burden so that they understand social issues and provide relevant intervention strategies.

The Pearson's correlation test was applied to each variable in Table 5.6 below in order to explore associations between the variables in questions 9 and 13.

Table 5.6: Level of training and skills received in literacy, health promotion, immunisations, addressing social ills, oral communication and written communication (N=368)

		q13.1 Development for formal qualification	q13.2 Specialised Training	q13.3 Mentoring	q13.4 Coaching
q9.1 Literacy	Pearson Correlation	.001	.193**	-.296**	-.025
	Sig. (2-tailed)	.983	.000	.000	.650
	N	333	339	334	333
q9.2 Health Promotion	Pearson Correlation	.041	-.183**	.259**	.264**
	Sig. (2-tailed)	.449	.001	.000	.000
	N	343	348	344	340
q9.3 Immunisations	Pearson Correlation	-.004	-.181**	.281**	.201**
	Sig. (2-tailed)	.945	.001	.000	.000
	N	344	346	344	339
q9.4 Addressing social ills	Pearson Correlation	-.004	-.249**	.305**	.196**
	Sig. (2-tailed)	.947	.000	.000	.000
	N	335	339	335	334
q9.5 Oral Communication	Pearson Correlation	-.035	-.213**	.325**	.301**
	Sig. (2-tailed)	.518	.000	.000	.000
	N	340	346	341	339
q9.6 Written Communication	Pearson Correlation	.022	-.040	.165**	.081
	Sig. (2-tailed)	.692	.465	.002	.139
	N	337	344	338	337

The data analysis displayed in the table shows that there is a significant positive correlation between literacy and specialised training (r (N=339) = .193, p<.0005) while there is a significant negative correlation between literacy and mentoring (r (N=334) = .296, p<.0005). Analysis also shows that there is a significant positive correlation between health promotion and mentoring (r (N=344) = .259, p<.0005) as well as coaching (r (N=340) = .264, p<.0005), while there is a significant negative correlation between health promotion and specialised training (r (N=348) = -.183, p<.0005). Similarly, analysis show that there is a significant negative correlation between immunisations and specialised training (r (N=346) = -.181, p<.0005), while

there are significant positive correlation between health promotion and mentoring (r (N=344) = .281, p<.0005) as well as coaching (r (N=339) = .201, p<.0005).

Furthermore, analysis also shows that there is a significant positive correlation between addressing social ills and mentoring (r (N=335) = .305, p<.0005) as well as coaching (r (N=339) = .196, p<.0005); while there is a significant negative correlation between addressing social ills and specialised training (r (N=339) = -.249, p<.0005).

These results show that specialised training increases level of literacy and therefore enhance CCG skills to deliver services better. However, literacy was not related to mentoring while mentoring might lead to successful health promotion. Operation managers and WBOT leaders should increase the mentoring and coaching of CCGs.

Analysis again shows that there is a significant negative correlation between oral communication and specialised training (r (N=346) = -.213, p<.0005). However, there are significant positive correlations between oral communication and mentoring (r (N=341) = .325, p<.0005) and coaching (r (N=339) = .301, p<.0005). Lastly, analysis also shows that there is a significant positive correlation between verbal communication and mentoring (r (N=338) = .165, p<.0005). Therefore it can be seen from the findings that even if a CCG did not undergo any specialised training, they can still perform since oral communication and specialised training were not related (r (N=346) = -.213, p<.0005).

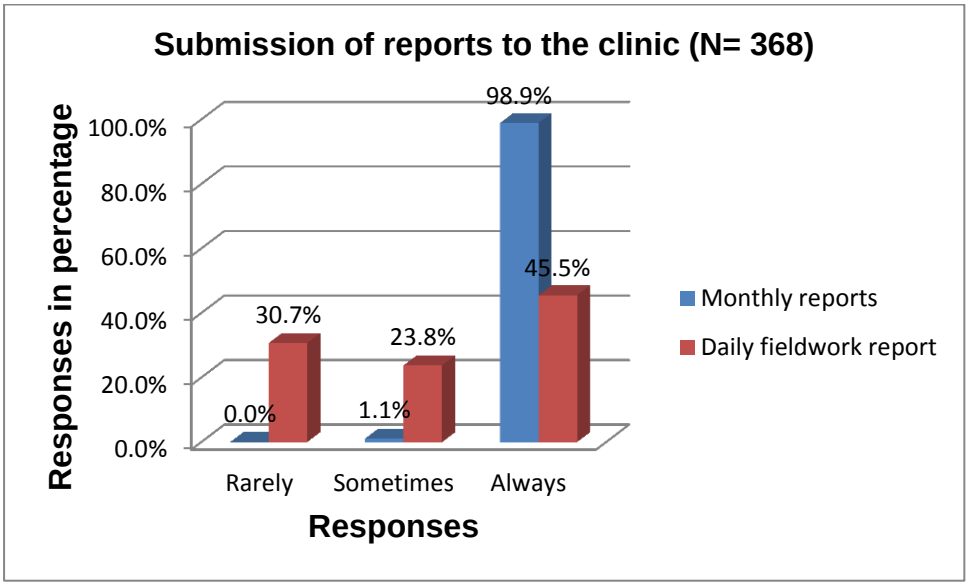
According to a systematic review by Viswanathan, Meera, Kraschnewski, Nishikawa, Morgan, Honeycutt, Thieda, Lohr and Jonas (2010:792), CCG programmes improved the health outcomes in underserved communities. It can be assumed that the significant results above demonstrate the effectiveness of CCGs in community care delivery in the rural wards of UDM.

Therefore it is critical for CCGs to receive training and skills in order to perform their work effectively, namely, health promotion, immunisation of children, addressing social ills and communication both orally and in writing. It is also important for management to implement effective mentoring and coaching programmes.

5.3.2.10 Question ten: You submit the following to the clinic?

Figure 5.16 below shows the submission of reports to the clinic.

Figure 5.16: Submission of reports to the clinic



Respondents were required to indicate if they were submitting monthly reports and daily fieldwork reports. At least 98.9% of respondents were submitting monthly reports, while 1.1% were sometimes submitting monthly reports. Forty-five and half percent of respondents indicated that they always submitted daily fieldwork reports; 23.8% were sometimes submitting; and 30.7% rarely submitted daily fieldwork reports.

The CCG supervisor contract provides that the supervisor for every CCG should be available to receive reports, urgent or non-urgent, guide and monitor the performance of the CCG (KZN DoH 2015:4). The expectation is that field workers should be reporting on a daily basis as they conclude their day's work.

A Pearson's correlation test was applied for this section. These results show inconsistencies in the submission of reports. Therefore, the district municipality needs to strengthen the implementation and monitoring of departmental policies on reporting by CCGs.

A correlation of the submission of reports and the provision of daily feedback, performance reviews and additional skills training was also done in order to identify

if there was a relationship between these variables. The findings are shown in Table 5.7 below.

Table 5.7: Correlation of submission of reports and provision of daily feedback, performance reviews and additional skills training

Correlations

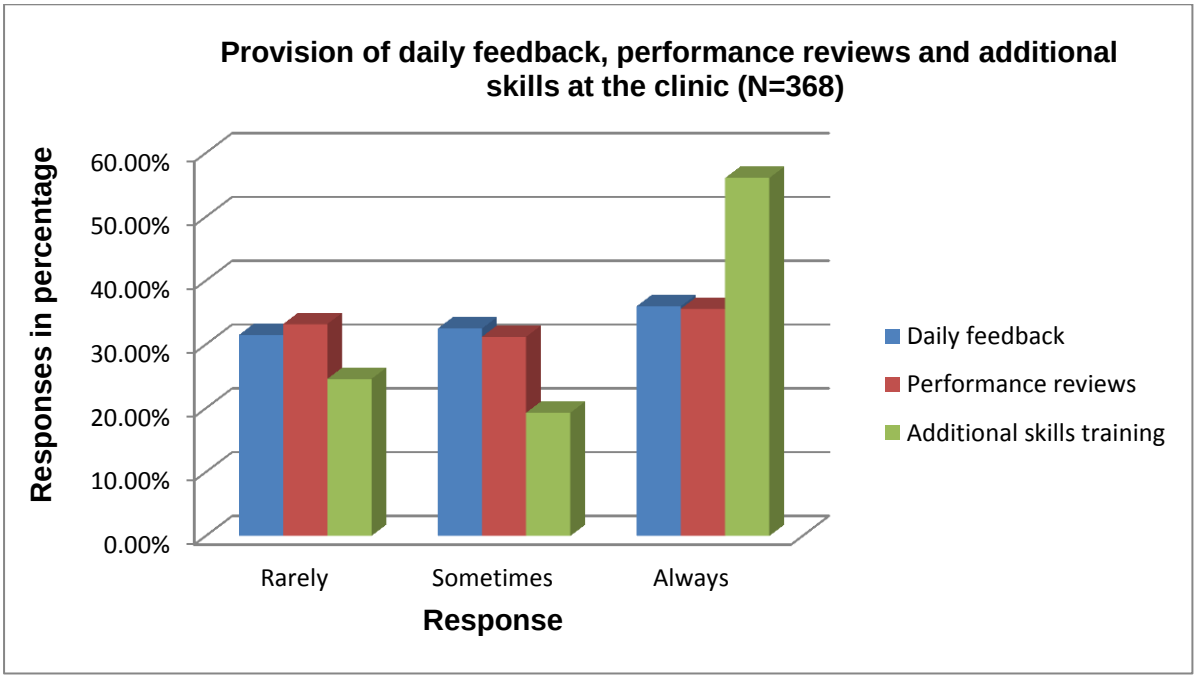
		q11.1 Daily feedback	q11.2 Performance reviews	q11.3 Additional skills training
q10.1 Monthly reports	Pearson Correlation	.076	.098	.091
	Sig. (2-tailed)	.148	.066	.083
	N	362	353	360
q10.2 Daily fieldwork report	Pearson Correlation	.418**	.361**	-.206**
	Sig. (2-tailed)	.000	.000	.000
	N	344	337	343

Results show that there are significant positive correlations between daily fieldwork report and daily feedback ($r(N=344) = .418$, $p<.0005$) as well as performance reviews ($r(N=337) = .361$, $p<.0005$) whilst there is a significant negative correlation between daily fieldwork report and additional skills training ($r(N=343) = -.206$, $p<.0005$). These results correspond with the findings of Perry, Zulliger, Scott, Javadi and Gergen (2013:36) in that if CCGs provide field work reports daily, the supervisors and operational managers are able to obtain feedback on what transpired from the day's work thereby fast-tracking referrals and interventions. However there was no evidence if daily fieldwork report was associated with additional skills training and therefore it might indicate that CCGs are able to provide daily fieldwork reports without having undergone specialised training.

5.3.2.11 Question eleven: You have been provided with daily feedback, performance reviews and additional skills training at the clinic.

Figure 5.17 below presents the responses on the provision of daily feedback, performance reviews and additional skills at the clinic.

Figure 5.17: Provision of daily feedback, performance reviews and additional skills at the clinic



The question required respondents to indicate if they were provided with daily feedback, performance reviews and additional skills training at the clinic. The study found that only 36.% were always provided with daily feedback; and 32.5 % were sometimes provided with daily feedback; and 31.5 % were rarely provided with daily feedback.

Approximately 35.6% of respondents were always provided with performance reviews while 31.2% indicated that they are sometimes provided with performance reviews. Only 33.2% of respondents were rarely provided with performance reviews at the clinic. About 56.1% of respondents were always provided with additional skills training, whilst 19.3% of respondents were sometimes provided with additional skills training and 24.6% were rarely provided with additional skills training at the clinic.

This implies that there are inconsistencies in the provision of daily feedback, performance reviews and additional skills training at the clinics within the district municipality. These findings are supported by literature in chapter two that despite

the growing evidence in promoting expansion of CCGs, the effective utilisation of CCGs remains a challenge (Arvey and Fernandez 2012:1633). In addition to basic skills such as communication, interpersonal, knowledge of the community and confidentiality skills, required by CCGs to function optimally, managers also expect CCGs to acquire other key skills and competences, namely organisational, advocacy, coordination, teaching skills.

An analysis was conducted to determine the correlations between daily feedback, performance reviews and additional skills training. Again, a Pearson's correlation test was used for this section in order to explore associations between the variables in questions 11, 12 and 13 (daily feedback; performance reviews and additional skills training). Findings are presented in Table 5.8 below.

Table 5.8: Provision with daily feedback, performance reviews and additional skills training

Correlations

		q11.1 Daily feedback	q11.2 Performance reviews	q11.3 Additional skills training
q12 Performance reviews are done	Pearson Correlation	.317**	.509**	-.107*
	Sig. (2-tailed)	.000	.000	.045
	N	355	346	352

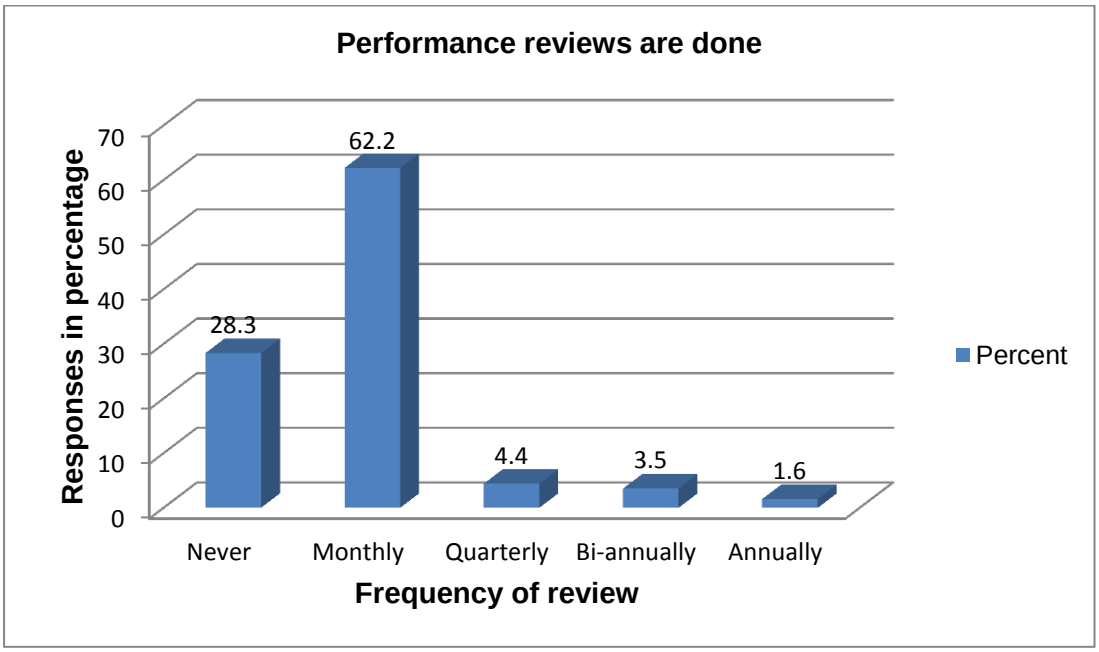
Analysis results show that there are significant positive correlations between the performance reviews done and daily feedback (r (N=355) = .317, p<.0005), performance reviews (r (N=346) = .509, p<.0005) and whilst there is a significant negative correlation between performance reviews done and additional skills training (r (N=352) = -.107, p<.0005).

The above positive correlations mean that high frequency in performance reviews done is associated with high adequacy in daily feedback, high adequacy in performance reviews and high adequacy in additional skills training. A negative correlation means that high frequency in performance reviews is associated with low additional skills training.

5.3.2.12 Question twelve: If performance reviews are done, indicate how often they are done.

Figure 5.18 below indicates the responses on the performance reviews conducted for CCGs.

Figure 5.18: Performance reviews are done, indicate how often they are done



Question twelve assessed how often performance reviews are done. The respondents were required to indicate never, monthly, quarterly, bi-annually and annually. Approximately 62.2% of respondents have performance reviews done monthly, while 28.3% of respondents indicated that these are never done. There are low responses to quarterly (2.2%), bi-annually (3.5%) and annually (1.6%).

Reporting is one of the monitoring tools used to ascertain if service delivery was taking place and how challenges, if any, are being managed. Procedurally the reports are to be submitted monthly to the OM who will inform the quarterly and annual clinic and district reports. The low responses imply that managers and supervisors do not regard CCG performance as critical for the enhancement of home-based care and other outreach programmes because they should insist on monthly reporting. The CCG supervisors are the immediate responsible persons to ensure that CCG reports are submitted at least monthly at the clinic. The OM at the clinic is also responsible for creating an environment for consistent reporting in

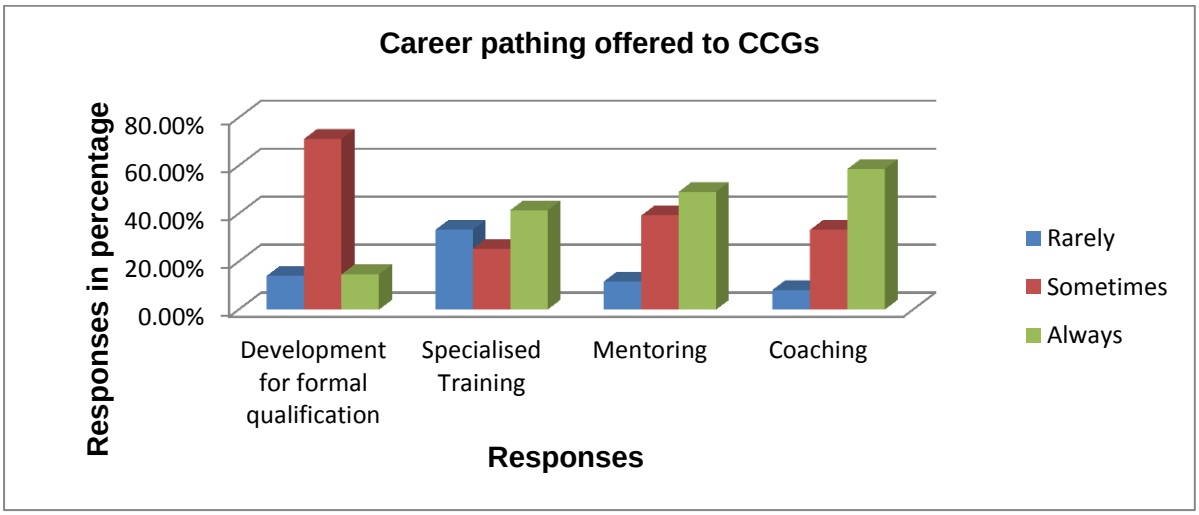
order to develop appropriate action plans to address the health challenges in the ward.

The CCG contract clearly stipulates that one of the jobs of the CCG is to submit monthly report and also, in terms of the CCG supervisor contract, the supervisor should receive reports from CCGs and monitor their performance (KZN DoH 2015:4). However, the field workers (CCGs in this case) are expected to be reporting on a daily basis as they conclude their day's work. This informs their monthly reports.

5.3.2.13 Question Thirteen: Indicate career pathing offered to CCGs

Figure 5.19 below presents the responses on the career pathing of CCGs.

Figure 5.19: Career pathing offered to CCGs



In question thirteen, respondents were expected to indicate career pathing offered in relation to development for formal qualifications, specialised training, mentoring and coaching and to indicate if these are rarely, sometimes or always offered.

The findings indicate that 14.1% of respondents were rarely offered development for formal qualifications while the highest proportion of respondents (71.2%) was rarely offered development for formal qualifications. Only 14.7% of respondents indicated that they were always offered development for formal qualifications. The findings also show that 33.4% of respondents were rarely offered specialised training and

25.4% were sometimes offered specialised training, while 41.4% of respondents were always offered specialised training.

The results indicate that 49.1% were offered mentoring and 39.2% were sometimes offered mentoring whilst only 11.7% indicated that they were rarely offered mentoring. On the other hand, the highest proportion of respondents (58.6%) were always offered coaching whilst 33.2% were sometimes offered coaching and only 8.2% were rarely offered coaching. The highest proportion of respondents (71.2%) was rarely offered development for formal qualifications, whereas only 14.7% of respondent indicated that they were always offered development for formal qualifications.

The low responses in development for formal qualification, mentoring and coaching indicate that little attention is being paid to these variables despite the fact that CCGs are expected to excel in what they do. They are on a 1-year renewable contract and therefore those that have grade twelve can pursue any formal qualifications. Mentoring and coaching programmes are critical for CCGs to gain competencies to deliver home-based care.

5.4 Interviews with Operational Managers

The narrative content of interviews and open-ended survey questions was analysed for key themes. The themes were identified, categorised and coded in order to uncover key themes. An inductive approach was followed in order to uncover constant comparisons through the emerging categories and the meaning of the categories from the data, as opposed to a deductive approach which involves imposing categories and meanings on the data before the data is even collected or analysed.

5.4.1 Demographic information on the type of clinic

This section required respondents to indicate the type of clinic they were working in, whether it was a fixed or a mobile clinic. The purpose was to compare data from fixed and mobile clinics and how this data influenced PHC services in the rural wards of UDM, with a view to recommending appropriate service delivery strategies.

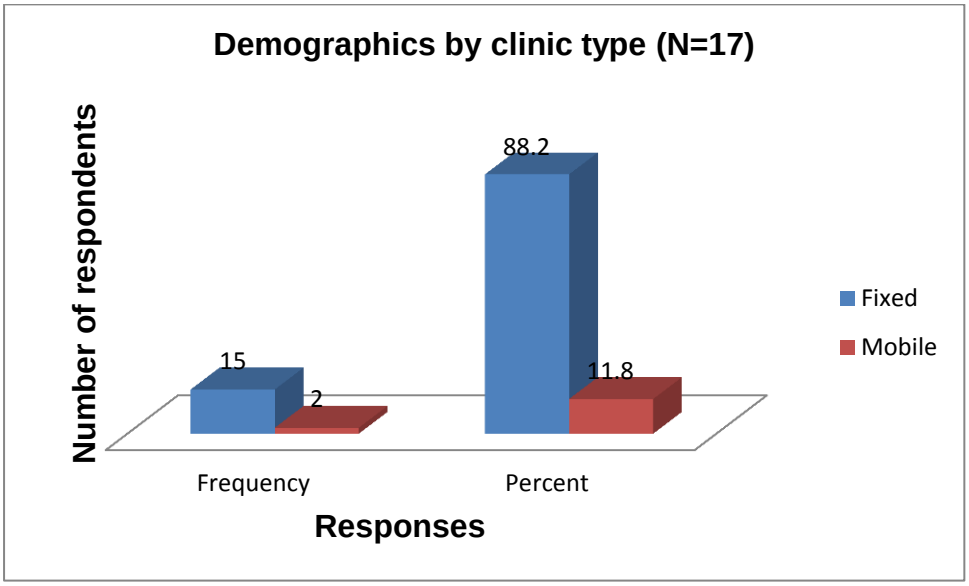
Figure 5.20 below provides data relating to the distribution of OMs by clinic type. Of the seventeen (17) OMs that responded, 15 (88%) were from fixed clinics while only 2 (12%) were from mobile clinics.

5.4.1.1 Demographics by clinic type

The demographics of clinic influence access to the clinic in terms of distances travelled and utilisation of health services.

Figure 5.20 below indicates demographics by clinic type.

Figure 5.20: Demographics by clinic type

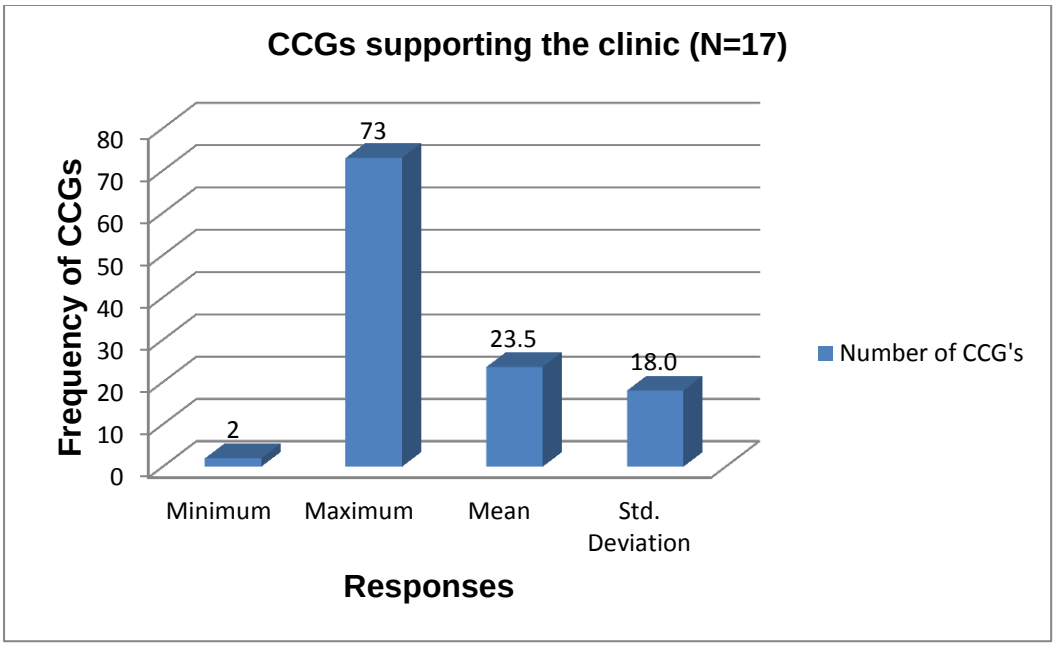


The results depicted in Figure 5.20 above indicate that the majority of respondents (88.2%) were from fixed clinics. Only 11.8% were from mobile clinics. Mobile clinics cover areas where there are no fixed clinics in order to increase access to services. The results indicate that hard-to-reach rural wards are under-served, meaning that there are still proportions of rural communities that are not utilising health facilities. Self-referrals to hospitals in town can be attributed to the lack of mobile or fixed clinics.

5.4.2 Deployment and placement of CCGs in the wards of UDM

Figure 5.21 below displays the different responses from respondents with regard to the number of CCGs supporting their clinics.

Figure 5.21: OM responses on how many CCGs supported the clinic



Respondents were requested to indicate how many CCGs supported their clinics. This question looked at the number of CCGs working under a particular clinic, whether fixed or mobile as indicated in the preceding paragraph. This section looked at the number of CCGs placed in the rural wards in comparison with the population covered and the number of households in these wards. The CCGs should be placed in such a way that they cover the wards.

The ratio is that one CCG is responsible for 60 households in the rural area and 150 households in an urban area per month. This study focused on rural wards in the district municipality. For example a ward having 1663 households should have twenty-eight CCGs as opposed to the two CCGs indicated in Table 5.9 below. It means that these CCGs are able to cover only 120 households per month. It was elicited from the respondents that one of the rural clinics had seventy-three CCGs, as opposed to some that had only two CCGs.

Table 5.9: OM responses on how many CCGs supported the clinic

Descriptive Statistics

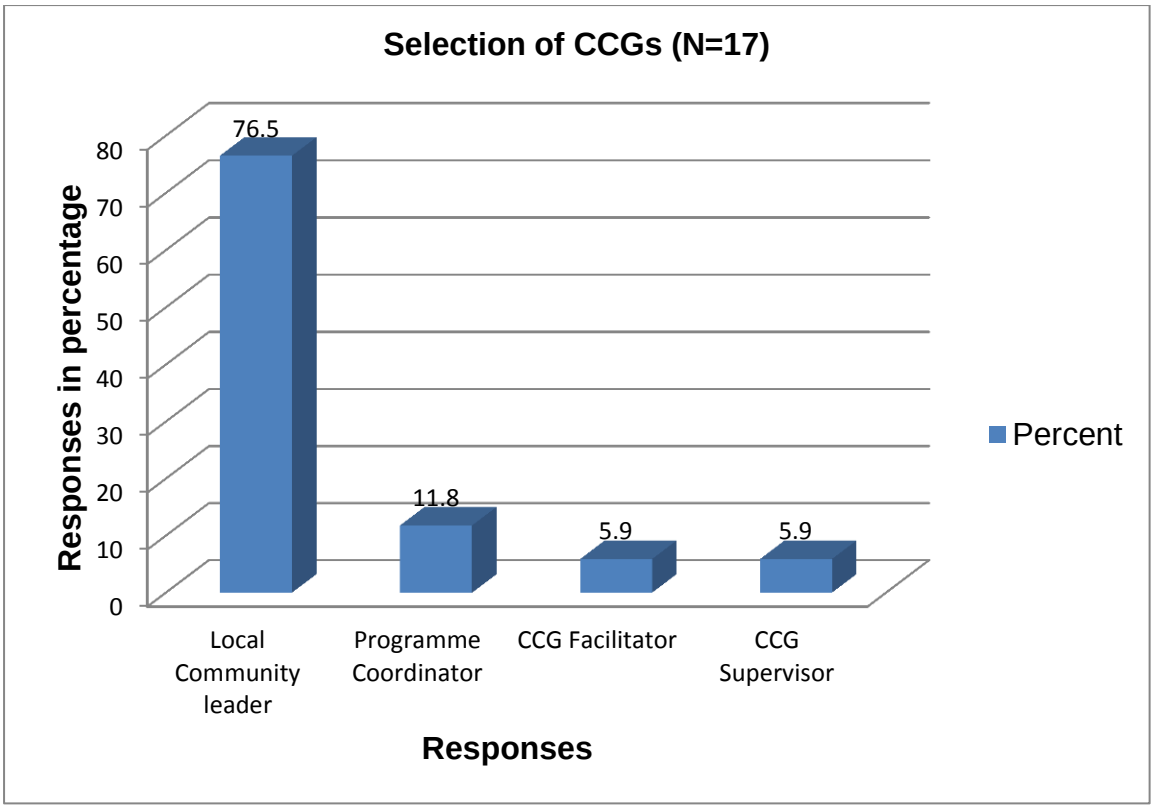
	N	Minimum	Maximum	Mean	Std. Deviation
Number of CCGs	17	2	73	23.59	18.018
Population covered	17	5761	32275	15626.53	7743.863
Number of households	17	1663	9958	3931.94	2102.345

Respondents indicated different numbers of CCGs allocated to their clinics. Statistical results in Table 5.9 above show a range of between two and seventy-three CCGs (M=23.59; SD=18.018). These results indicate disparities in the deployment and placement of CCGs in the ward.

5.4.3 OM responses on the selection of CCGs

Figure 5.22 below displays the different responses from respondents with regard to the selection of CCGs in the wards.

Figure 5.22: OM responses on the selection of CCGs



The respondents were also required to indicate their views about the selection of CCGs. These questions were chosen to ensure the integrity of the data whereby the OM interviews were crosschecked with the responses from CCG interviews.

Most respondents (76.5%) indicated that CCGs were selected by the local community leaders and 11.8% of respondents indicated that CCGs were selected by the programme coordinator in their wards. None of the respondents from the mobile clinics indicated community leaders to be responsible for the selection of the CCGs. About 5.9% of respondents indicated that the selection was done by the CCG Facilitator, while the remaining 5.9% of respondents stated that it was done by the CCG supervisor.

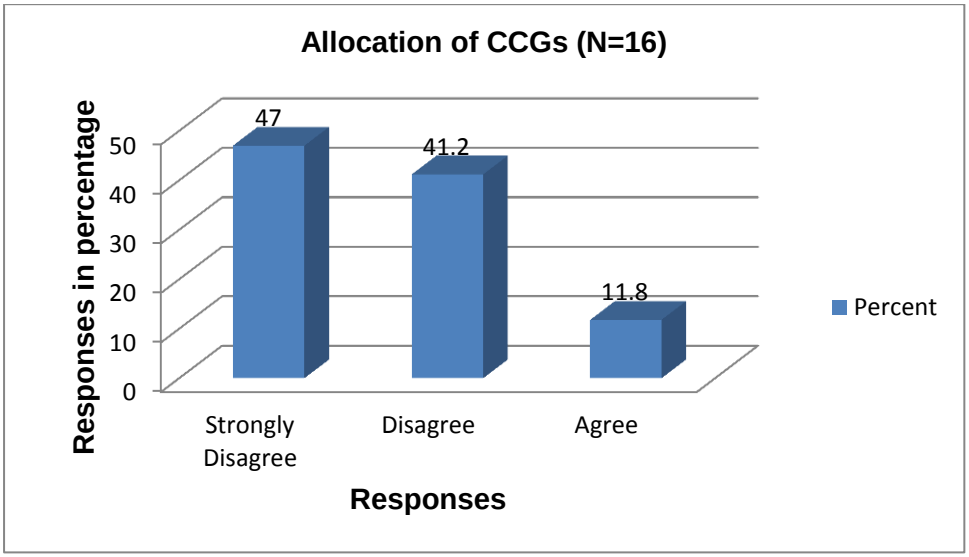
There is a need to consult with the KZN DoH policies on the selection criteria which indicate that CCGs are selected at a community meeting conducted by the community leader, in this case, the ward councillor. There are inconsistencies in the implementation of the selection procedures in the district.

The chi-squared analysis test shows that significantly more of the respondents indicate that CCGs are selected by community leaders (χ^2 (3, N=17) = 24.176, p<.0005). These results were found to be consistent with the departmental selection criteria that direct community leaders to hold a community meeting or imbizo for selecting CCGs. This is done in order to select a person that is known to the community, who speaks their language and quite understand the disease profile and the cultural practices of the people. However, other responses were inconsistent with the departmental criteria as in the case of CCGs being selected be the programme coordinator or CCG facilitator or the CCG supervisor, whereas the procedure clearly spells out that CCGs are selected in a community meeting convened by the community leader. The community leader could be a ward councillor or a traditional leader in the case of a traditional council.

5.4.4 OM responses on allocation of CCGs

Figure 5.23 below represents responses of OMs in relation to the allocation of CCGs.

Figure 5.23: OM responses on allocation of CCGs



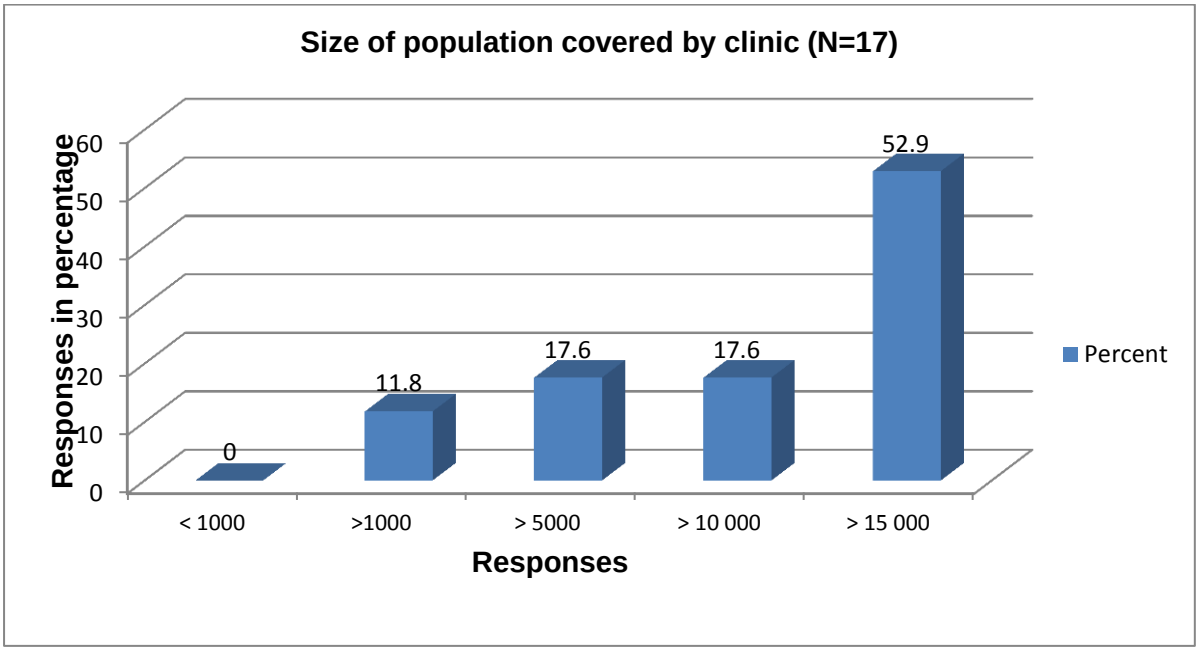
Respondents were required to indicate if the allocation of CCGs was adequate on a 5 point-Likert scale. However, for the purpose of this analysis only the 3 grouped ratings will be discussed, namely strongly disagree, disagree and strongly agree.

The majority of respondents (47%) stated that they strongly disagree with the allocation of CCGs and 41.2% of respondents also indicated that they disagree. Only a small proportion of respondents (11.8%) stated that they agree. This is attributed to disparities in the allocation of CCGs in rural wards due to limited funding in the department. These views are consistent with the findings that in one ward there were only 2 CCGs, while in another ward seventy-three CCGs were supporting the clinic. These results are also consistent with the views of CCGs on ward coverage as discussed earlier.

5.4.5 The size of the population covered by the clinic

Figure 5.24 below represents the responses of OMs on the size of the population covered by the clinic.

Figure 5.24: OM responses on the size of the population covered by the clinic



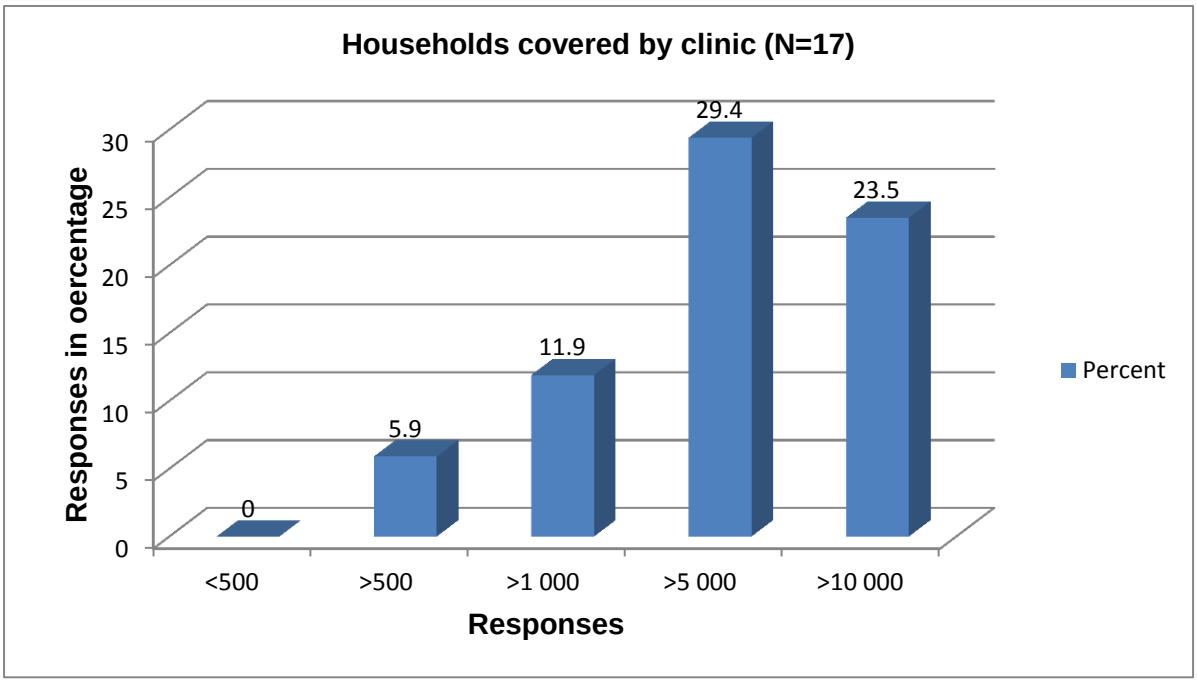
For the purpose of illustration, the population figures above are presented in thousands. The respondents were required to indicate the catchment population for their clinics. The majority of respondents (52.9%) indicated that their clinics covered more than 15 000 people and there were no clinics (0%) which covered less than 1000 people. About 17.6% of respondents indicated that their clinics covered more than 5000 and another 17.6% of respondents stated that their clinics covered more than 10 000 people. Meanwhile only a small proportion of respondents indicated that their clinics covered more than 1000 people. The low proportion is associated with mobile clinics which service people from hard-to-reach areas like farm workers, game reserves and other small settlements in the very rural areas.

The size of the catchment population was very important for this study as some clinics cater for three to four wards if there are no clinics around and perhaps no mobile points. Despite the wards being served by these clinics, there are cross-border patients from other district municipalities like UMzinyathi and even the Free State province in the case of Okhahlamba and Ladysmith Local Municipalities as patients have a right to choose where they want to be treated. Knowledge of the size of the population serviced is crucial for service delivery planning and the allocation of resources. These figures were also confirmed from the census report for 2011 (Statistics SA, 2011:5).

5.4.6 The number of households covered by the clinic

Figure 5.25 below shows the responses of OMs on the number of households covered by their clinics. This includes both mobile and fixed clinics.

Figure 5.25: The number of households covered by the clinic



The results are presented in thousands for the illustration of the findings. The results show different numbers of households covered by the clinics. Again, there was no clinic that covered less than 500 households, while 5.0% of respondents stated that their facilities covered at least more than 500 households and 11.9% indicated that their clinics covered more than a thousand households.

The majority of respondents (29.4%) stated that their clinics covered more than 5 000 households while about 23.5% covered more than 10 000. The highest number of households is due to the fact that some clinics are serving more than one ward where there are no clinics in a particular ward. These findings are consistent with those discussed above on the size of the population covered by these clinics. These household figures were also confirmed from the census report for 2011 (Statistics SA, 2011:27).

This information will assist in the identification of gaps in service delivery in relation to the available fixed and mobile clinics, as well as highlight a need to strengthen ward-based outreach teams in the district municipality.

These results have been identified in literature that studied health sector reforms and the PHC re-engineering model learnt from the state of Ceara in Brazil since 1987. For example, the implementation of the Health Agents Initiative up to the introduction of the family health programme. Singh and Sullivan (2012:2) asserted that CCGs were responsible for strong community engagement. Another report by Harris (2012:130) indicated that reaching out to the households, that is community outreach, has influenced the improvement of health outcomes like increasing life expectancy, reducing infant mortality and under-one-year deaths, malnutrition and non-communicable diseases in Brazil.

CCGs should be placed in such a way that they cover the ward. The ratio is that one CCG is responsible for 60 households in the rural area and 150 households in an urban area per month. This study focused on rural wards in the district municipality. A correlation between the number of CCGs placed in the rural wards, the size of the population and the number of households covered by clinics in these wards was also done. The intention was to identify if any association exists between these variables.

Table 5.10: Comparison between number of CCGs, population and number of households covered by CCGs in the wards (N=17)

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Number of CCG's	17	2	73	23.59	18.018
Population covered	17	5761	32275	15626.53	7743.863
Number of households	17	1663	9958	3931.94	2102.345
Valid N (list wise)	17				

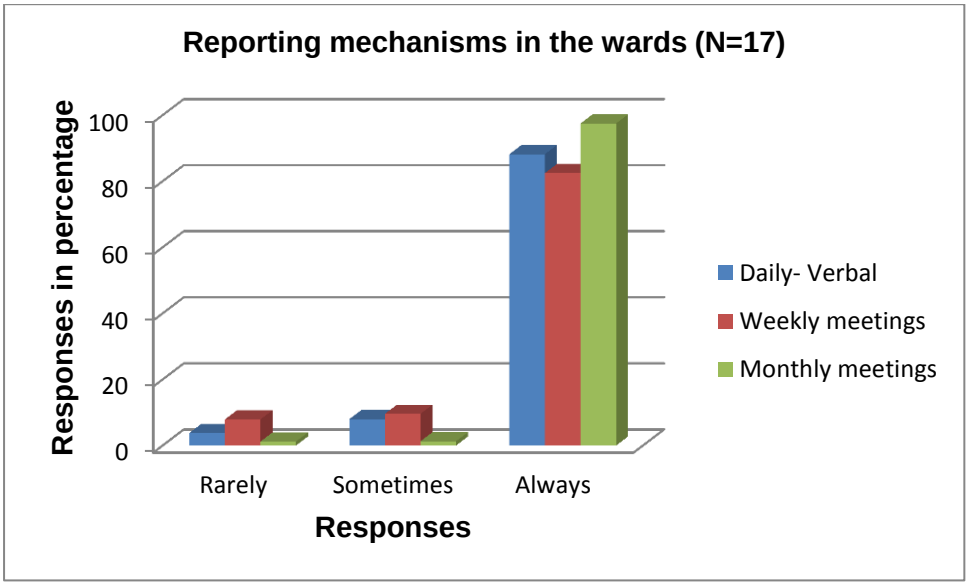
For example a ward having 1663 households should have twenty-eight CCGs as opposed to the two CCGs indicated in Table 5.10 above. It means that these CCGs are able to cover only 120 households per month. These disparities were identified

above when for two versus seventy-three CCGs allocated, M=23.59; SD=18.018. This indicates disparities in the deployment and placement of CCGs in the ward. To ensure adequate PHC services, the DOH needs to increase the number of CCGs in each of the wards.

5.4.7 Reporting mechanisms used in the wards

Figure 5.26 below, represents the findings on the reporting mechanisms used in the wards.

Figure 5.26: Reporting mechanisms used in the wards



In this section, the respondents were asked to respond about the reporting systems in their wards. Three common reporting mechanisms were identified, including daily verbal reports, weekly meetings and monthly meetings at the clinic. About 88.2% of respondents indicated that daily (verbal) reporting was always used, while 82.5% indicated weekly reporting and the majority of the respondents (97.5%) indicated monthly reporting.

Very low proportions of respondents indicated that reporting was rarely done on a daily, weekly or monthly basis. The results also show low rating if reporting is sometimes done daily, weekly and monthly.

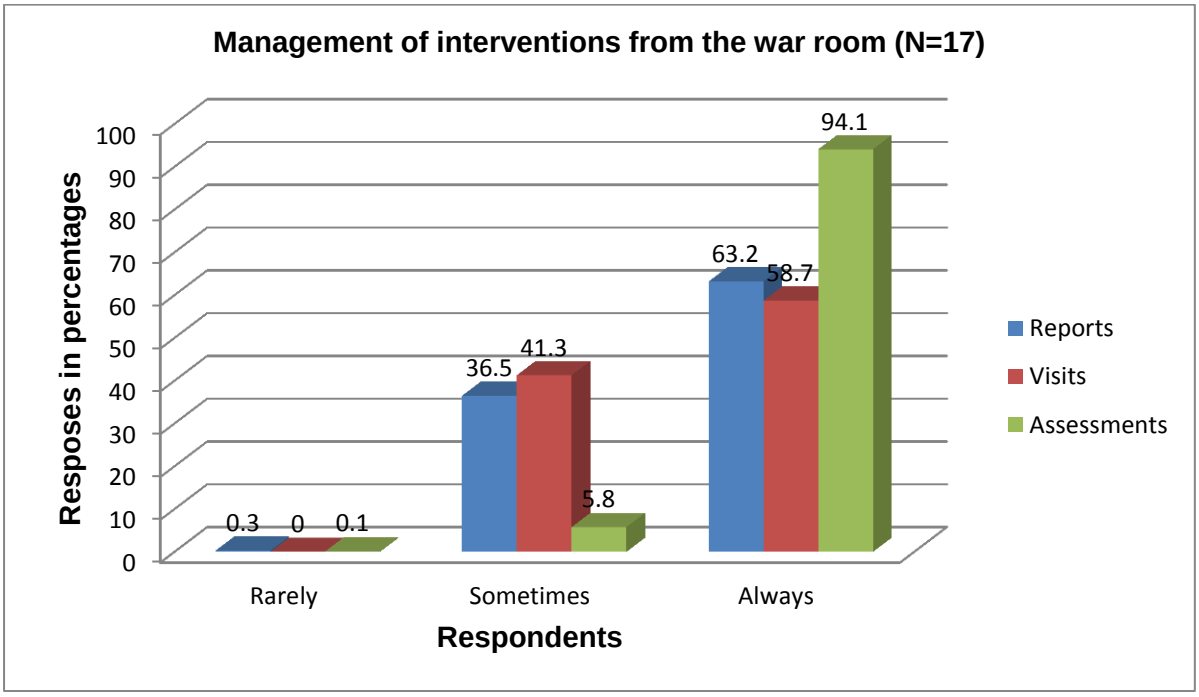
This section aimed to understand if community health needs were identified and addressed and if they were reported daily, weekly or monthly. The results reflect a

higher proportion of these being fast-tracked and monitored on a daily, weekly and monthly basis. Procedurally, WBOTs including CCGs, should be providing fieldwork reports daily and weekly at the war room and the clinic. These reports would then be consolidated into monthly reports that are shared with the OSS structures in the wards, Local Municipality and UDM so that all the health issues reported are addressed promptly.

5.4.8 How are the Interventions managed from the war room

Figure 5.27 below shows OM responses on the management of interventions from the war room.

Figure 5.27 Management of interventions by CCGs



Respondents were requested to use the 5 point-Likert scale to rate the management of interventions from the war rooms. The respondents rated reports, visits and assessments for managing interventions from the war room differently. For this analysis a 3 grouped scale will be used, namely rarely sometimes and always.

Approximately 63.2% of respondents stated that reports were always used to manage interventions and 0.3% indicated that reports were rarely used. While

58.7% of respondents indicated that visits were always being used, about 41.3% stated that these were sometimes used. Overwhelmingly, the majority of respondents also identified assessments as always used to manage interventions from the war rooms while a very low proportion of respondents (0.1%) indicated that assessments were rarely used to manage interventions from their war rooms. A fair proportion of respondents indicated that reports and visits (36.5% and 41.3% respectively) were sometimes used. About 5.8% stated that assessments were sometimes used to manage interventions from their war rooms.

The low response rate can be attributed to the fact that a large number of Operational Managers are not actively involved in the war rooms, except for the CCGs and nurses working in WBOTs. This also indicates that OMs were not effectively implementing all the systems at their disposal to manage interventions from the war rooms. The KZN Department of Health policies and procedures are currently accommodating the implementation of OSS approaches to health issues and the activities of OSS are part of the performance agreements for managers. The MEC for KZN Health, Dr SM Dhlomo, in his presentation on 17 September 2015, stated that “If one department must see improved health outcomes due to OSS. It is the Department of Health (KZN Strategic Plan 2015).

In terms of the Operation Sukuma Sakhe model as discussed in chapter two and the KZN PHC Re-engineering Framework (2014:8), operational managers are also expected to actively participate in the war rooms by attending weekly or monthly meetings; by being part of the service delivery campaigns and operation MBO including reports; visits; and conducting assessments. The PHC re-engineering framework corresponds with the District Health System model discussed in chapter two.

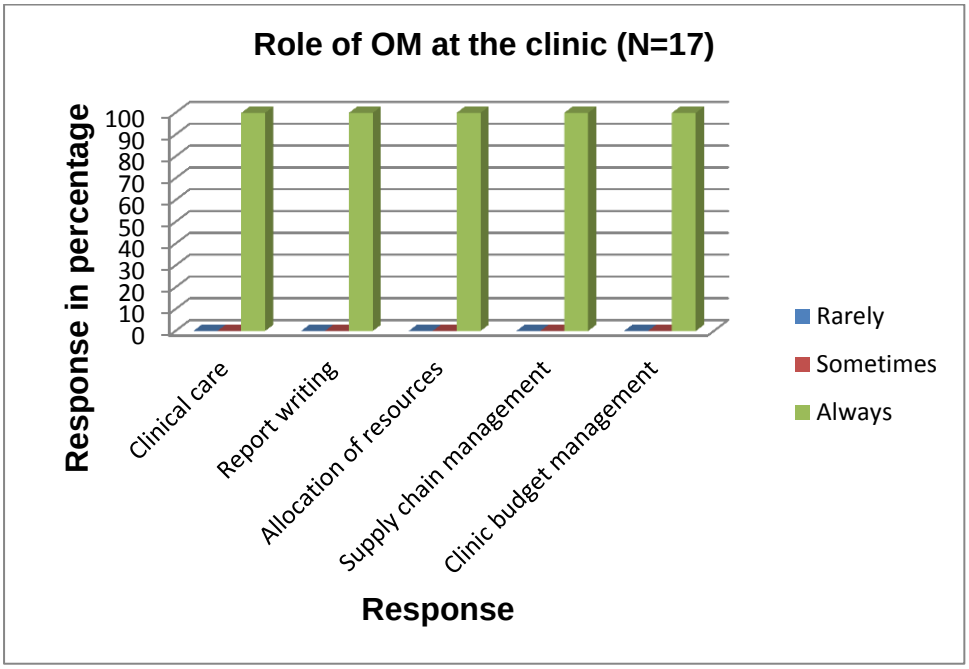
Literature (OSS 2011:39) has also shown the importance of implementing the OSS approach where the CCGs conduct household profiling to establish household needs and refer, provide home-based care, attend the weekly war room meetings and provide feedback to households on services. Torrest et al (2011:1) and O’Brien et al (2010:262) emphasize that CCGs play a major role in a continuum of service

functions in order to address the broad determinants of health and related social, behavioural and medical needs.

5.4.9 Indicate your role at the clinic

Figure 5.28 indicate the responses on the role of the OM at the clinic.

Figure 5.28: Role of OM at the clinic



This question required the respondents to indicate their key activities in the clinic. The findings identified that respondents were responsible for various functions, namely clinical care, human resource management, finance management, supply chain management (ordering of supplies) activities and writing reports. All respondents (100%) identified clinical care, report writing (100%), allocation of resources (100%), supply management (100%) and clinic budget management (100%) as key activities.

Bateman and Snell (2009:56) identify management functions as planning, organising, staffing, directing/coordination and controlling and organising is a leadership function. In Planning, OMs are expected to forecast on the future by determining what has to be done in order to achieve the facility objectives while they organise for staffing, materials, equipment and finances. Staffing involves recruitment, selection, training and development, performance appraisal and

promotions and transfer of staff. Furthermore, coordination involves controlling all the organizing, planning and staffing activities of the facility so that all activities function together for the success of the organization. In order to coordinate successfully, the management should focus on effective communication, supervision and direction.

Lastly, the controlling role of OMs involves directing all activities in the correct way so that the objectives and goals of the facility are achieved. Bateman and Snell (2009:59), further describe controlling as the measurement and correction of performance activities of subordinates in order to make sure that the enterprise objectives and plans needed to obtain them are being accomplished. These roles are interrelated and therefore a shortfall in one affects the rest of the roles. OMs indicated that they were doing more clinical activities than management activities due to a shortage of clinical nurse practitioners at the clinics.

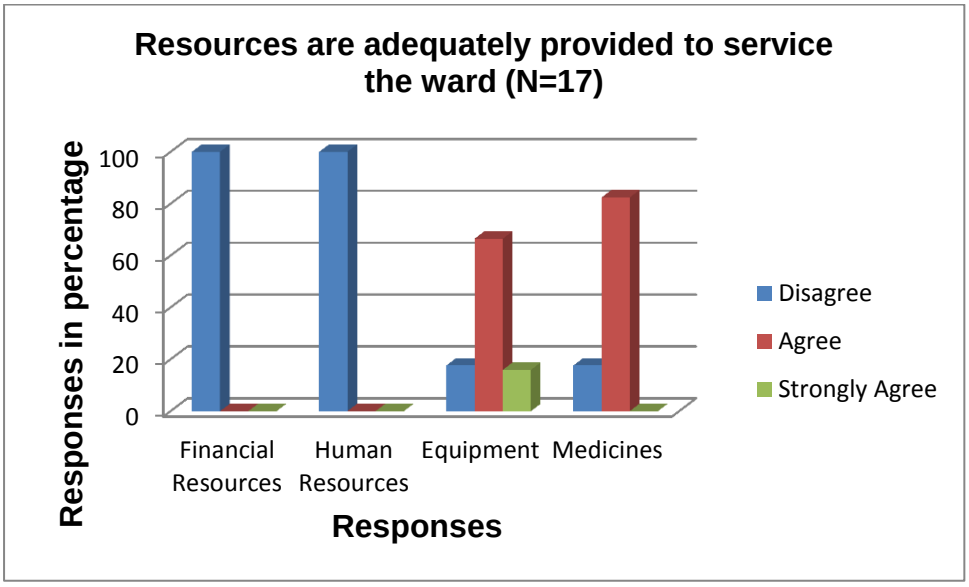
In essence, OMs were also responsible for clinical support services for PHC. Clinical support services focus on specific services essential in the provision of clinical care and include the timely availability of medicines and the efficient provision of diagnostic, therapeutic and other clinical support services and necessary medical technology, as well as systems to monitor the efficiency of the care provided to patients. Therefore, these activities form the job description of OMs at the clinics. The standard states that OMs should be responsible for 80% management and leadership functions and for 20% clinical care.

As part of public health, OMs should work with NGOs and other health care providers along with local communities and civil societies within the OSS approach to promote health, prevent illness and reduce further complications and ensure that integrated and quality care is provided for their whole community, including disaster management. It can be noted that rural clinics have operational management challenges and therefore are not or are only partially compliant with standard number six (District NCS Report 2015: 9).

5.4.10 Resources are adequately provided to service the ward

Figure 5.29 below presents the response on the provision of adequate resources, namely, human resources, finance, equipment and medicines to service the ward.

Figure 5.29: Provision of adequate resources: Human resources, finance, equipment and medicines



Respondents indicated their views on a 5-point Likert scale but the results will be presented on a grouped 3-point Likert scale, namely disagree, agree and strongly agree. The results that show 100% of the respondents disagreed on the adequate provision of financial and human resources, while a low proportion of respondents (17.6%) disagreed with the adequate provision of equipment and medicines. The results also indicated that about 66.5% of respondents agreed with the adequate provision of equipment and medicines while the majority of respondents (82.4%) agreed with adequate provision of medicines.

This question was based on the notion that it is the responsibility of every manager to ensure the equitable allocation of resources in support of service delivery. Since PHC re-engineering is a priority in the department since 2010, resource allocation should be earmarked for PHC services, especially the four streams of PHC.

Trends have indicated that senior management teams are not seen to be fully supportive of PHC clinics. This view is supported by the studies of Moetlo, Pengpid and Peltzer (2011:5) that identified problems and barriers to the implementation of

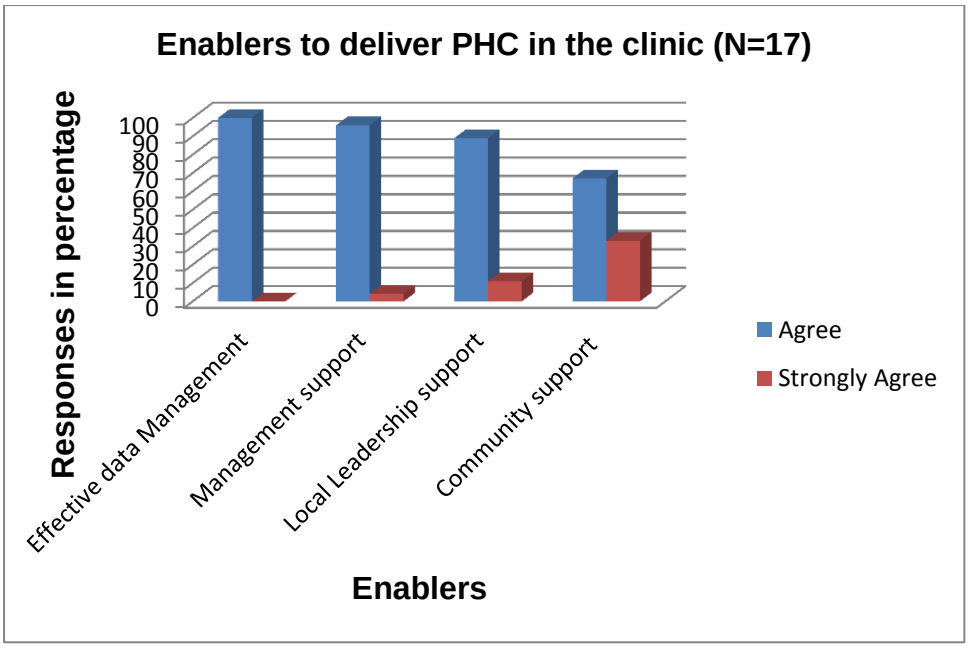
community health based care (CHBC) such as the lack of home-based kits, a lack of transport fees, low stipends, the lack of resources and problems of supervision and the lack of management skills.

A discussion on health care system in chapter two of this study demonstrated how human resources, finance, equipment and medicines become critical parts of the health care system. If one or more of these building blocks is inadequate, the provision of services is affected. For example, staff need vehicles to do home visits; equipment to assess patients; and medicines to prevent disease or treat patients.

5.4.11 Rank the enablers to deliver PHC in your clinic

Figure 5.30 below presents the enablers of OMs to deliver in the clinic.

Figure 5.30: Rank the enablers to deliver PHC in your clinic



All respondents (100%) agreed with effective data management as the enabler, whereas 96% of respondents agreed and 4% strongly agreed with management support. About 89% of respondents also agreed with community leadership support, while 11% of respondents strongly agreed with community leadership support as one of the enablers to deliver PHC services.

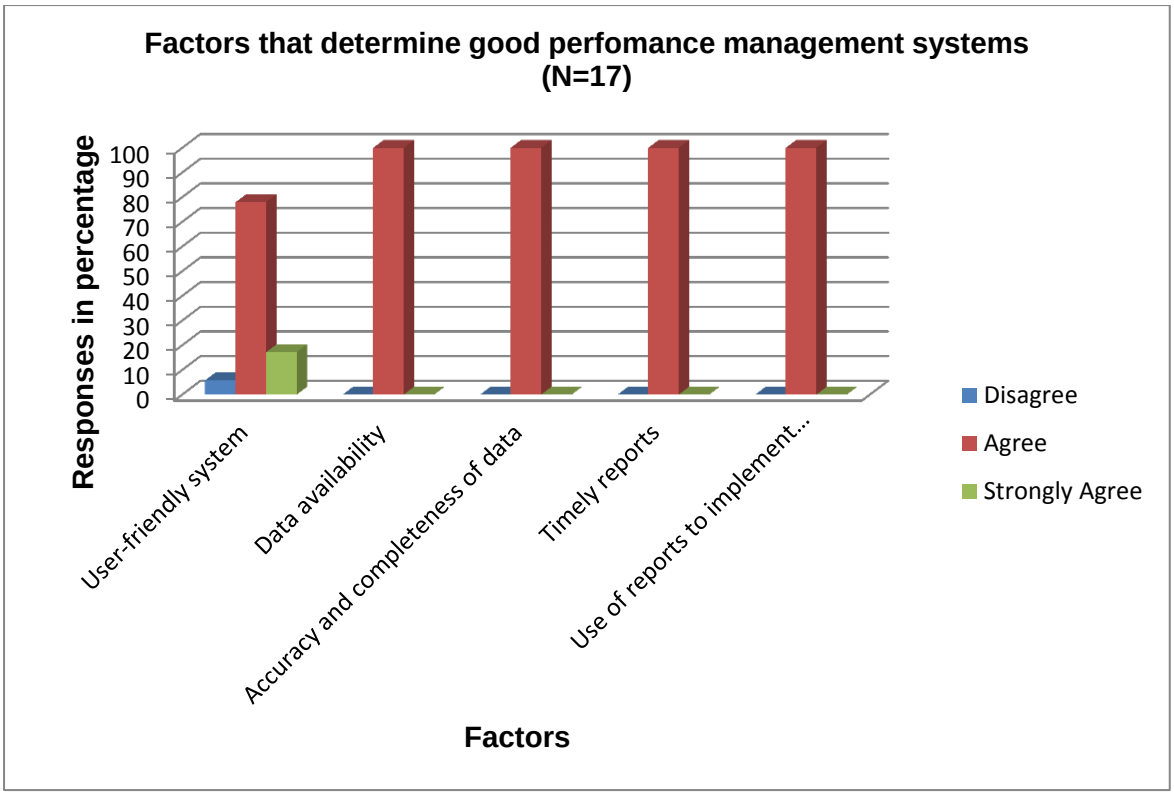
Similarly, about 67% of respondents agreed that community support was one of the enablers to deliver PHC services while 33% strongly agreed with community support as one of the enablers to deliver PHC services.

The above results show that effective data management, management support, community leadership support and community support are crucial for a positive service delivery. The National Core Standards identify leadership and governance as essential for effective service delivery which expect the OM to lead and manage clinical care.

5.4.12 Factors determining good performance management systems

Figure 5.31 below indicates the responses to this section.

Figure 5.31: Factors determining good performance management systems



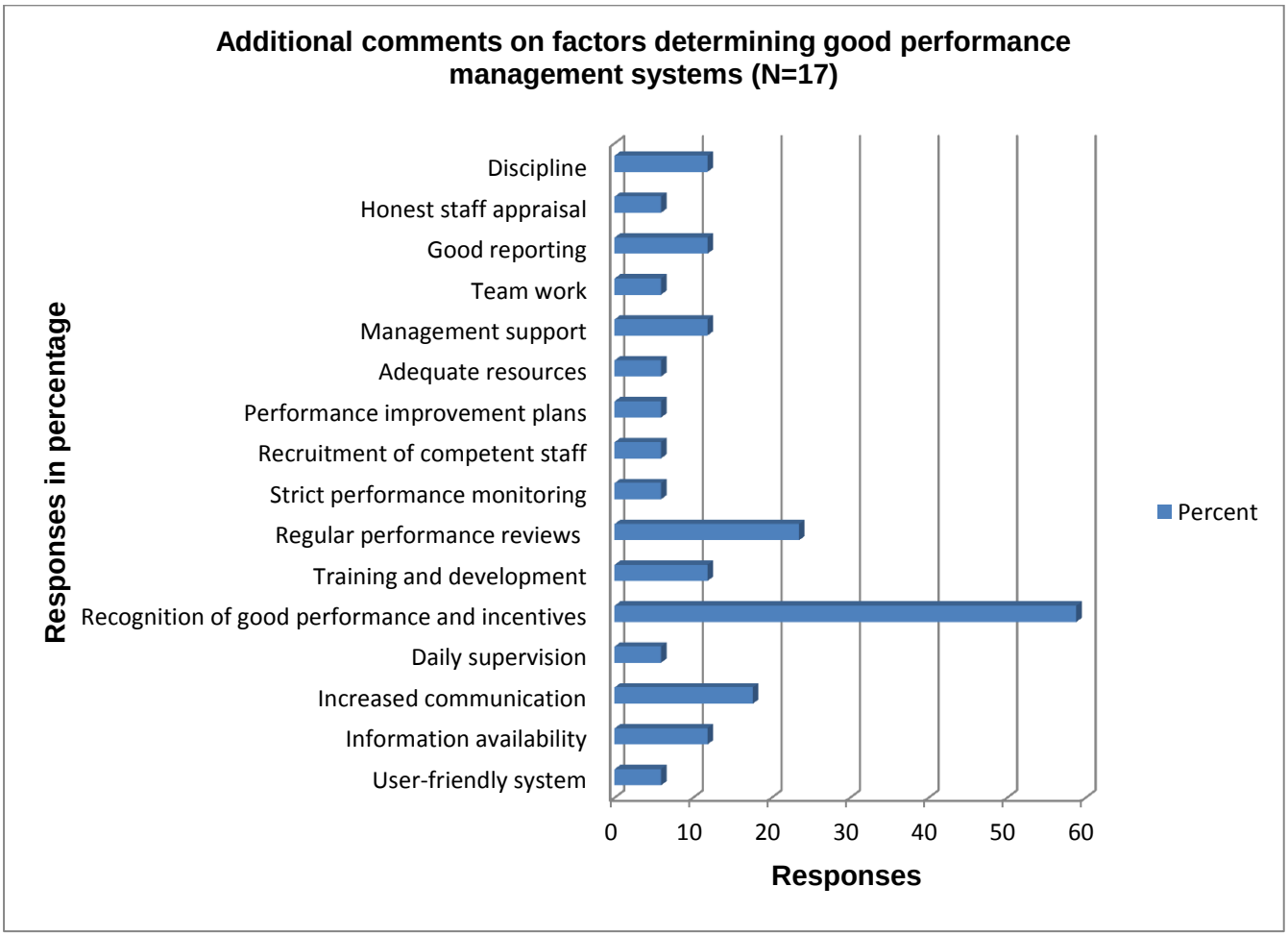
One hundred percent (100%) of respondents equally agreed with data availability, accuracy and completeness of data, timely reports and the use of reports to implement changes. About 78% of respondents agreed with user-friendly systems, while 17% strongly agreed with user-friendly system as determining a good performance management system.

Accurate and timely data availability is very important in guiding managers in decision-making. Data management is a problem in UDM and the department as a whole, resulting in inappropriate action plans and decision making. Information management system strengthening has become one of the priorities in the Department of Health.

Respondents were also requested to indicate their recommendations and make additional comments about PHC in rural communities. This was intended to elicit additional information not covered by the questionnaire but considered crucial to enrich the study.

These factors are presented in Figure 5.32 below.

Figure 5.32: Additional comments on factors that determined good performance management systems



Most respondents (58%) identified incentives and 24% identified regular reviews as determining good performance management systems. About 18% of respondents mentioned increased communication, while 12% identified information availability, training and development of CCGs and management support for CCGs. Good reporting and discipline were identified by approximately 12% of the respondents. Equal proportion of respondents (6%) identified a user-friendly system, monitoring, recruitment of competent staff, performance improvement plans, adequate resources, team work and honest staff appraisal as important. The factors were grouped and discussed under the following headings:

- **Management and leadership**

Management teams at various levels of care should create an environment that will promote high quality performance by health workers at all levels. Management and leadership issues included, amongst others, management support and the allocation of adequate resources for staff to deliver health services. Management should ensure that performance improvement plans are developed and implemented in order to enhance the quality of service delivery.

- **Systems strengthening**

Respondents indicated that a user-friendly system, information availability and increased communication are key for good performance management systems. For example, accurate and quality information enables managers to analyse the disease profile in the ward and plan appropriate strategies. Communication directs what staff should do and how to do it, as well as clarifying difficult health policies and protocols thereby enhancing delivery of PHC in the rural wards.

- **Human resource management**

Human resources are an asset in the department of health and must therefore be valued as such. Respondents identified inter alia teamwork, recruitment of competent staff, training and development, performance improvement plans, recognition of good performance and discipline as factors that determine good performance management systems. Honest staff appraisal was also identified by respondents because performance appraisal systems are administered for

compliance only. Staff are often discouraged because currently every staff member is rated the same and there are no performance incentives or bonuses in the KZN Department of Health.

- **Monitoring and evaluation**

Monitoring and evaluation is required for main activities and services to determine if They are being met. Monitoring and evaluation include daily good reporting, strict monitoring of performance and regular performance reviews. Performance audits for PHC facilities are negative due to incomplete or non-availability of data. Sometimes there are variances in data and tallying is a major problem. Consequently, the National DoH will be implementing new registers following a major exercise on the rationalization of registers.

5.4.13 Additional comments

Question five required respondents to provide additional comments on what they thought was important but was not covered by the questions. The respondents identified various issues over and above the factors raised and discussed in this section. It was also noted that some of the comments made had been indicated in previous responses but perhaps respondents wanted to emphasise these factors. These included the implementation of OSS in KZN; support of fieldworkers, for example CCGs; strengthening of family health; ward-based outreach teams (WBOTs); better stipends for CCGs; and the opportunity for CCGs to contest for other jobs. Various factors identified were grouped into the following categories.

- **Management issues**

Management issues included policy implementation, provision of adequate resources, skills training for better performance and instillation of commitment to all staff in order to enhance service delivery. Respondents also raised the issue that performance bonuses for high performers and other incentives and management support were imperative for PHC service excellence. Lastly, monitoring and evaluation programmes were required in order to measure the success of interventions. Therefore, monitoring and evaluation teams should put in place effective M & E plans that address the deliverables at household, ward and municipal levels. The same issues were identified by Gilson (2012:24).

- **Political leadership and governance issues**

A political will and governance are essential components of ward-based PHC service delivery. This involves stakeholder engagement and participation. The local municipalities, including the ward councilors play a pivotal role since they are OSS champions for their wards. They are responsible for the deployment of local resources and oversight. They also and ensure that there is effective coordination and that government departments deliver services for the community. Govender (2011:260), identified the role played by the political sub-system in which political office-bearers and municipal structures decide on priorities and assign responsibilities to officials so that service delivery is enhanced.

Active community participation should be a priority in the planning, provision, control and monitoring of services through community structures and within the district health system for all health services in the district municipality. Only 5.9% of respondents suggested the need for understanding communities to cooperate and be active in health issues. They needed communities who understand the conditions that PHC staff was working under, for example that waiting times were increased due to staff shortages.

- **Infrastructure issues**

Respondents indicated that infrastructure issues need to be addressed. They indicated that there was inadequate space at the clinics for service expansion and therefore an urgent need to strengthen community outreach in order to decongest the clinics. There was a need to procure vehicles for WBOTs for home visits. The infrastructure issues were also identified in Brazil by Singh and Sullivan (2012: 25).

- **Community Caregiver issues**

The majority of respondents asserted that recognising the importance of CCGs in the health system was critical. This also emphasised an understanding of the role of CCGs in the health system by health management and communities. There was a need to recruit additional CCGs to increase ward coverage. Other factors indicated were an increased stipend for CCGs, provision of support for CCGs with regard to

jackets, transport, mobile phones and SMS networks. These would enhance service delivery at the community level, even in bad weather and terrain. SMS networks for CCGs would enhance referrals of clients and interventions, training and technical support from managers. Training and career pathing for CCGs were also identified by respondents. Training helps CCGs to excel in service provision under the circumstances. Lastly, supervision was also cited by respondents in order to be guided and supported in cases where they meet challenges thereby improving performance. Management teams were also required to instill commitment to all staff so everyone strives for excellent service delivery.

Javanparast, Heidari and Baum (2011:4) conducted an exploratory study on the contribution of community health workers to the implementation of comprehensive Primary Health Care in rural settings in Iran. Similar studies by Abosede et al (2012:5) and Patchranarumol et al (2012:203) discussed, amongst others, the roles of CCGs, contribution of CCGs to the implementation of PHC, recognition from community, status, satisfaction and training. The findings of this study correspond with these factors.

5.5 Conclusion

This chapter described data analysis methods, followed by the presentation of results and a discussion of the research findings. Quantitative and qualitative data analysis methods were used for the analysis of data from the questionnaires and the interviews respectively. Data findings were described as correlations to the study variables and presented as tabulations. Findings of the study were found to be consistent with the findings of numerous studies conducted internationally and in Sub-Saharan Africa on health sector reforms, health systems strengthening and monitoring and evaluation of ward-based PHC services.

Chapter six presents a summary of the major findings in respect of the research questions and the general conclusions. The chapter also makes recommendations and discusses future research. The implications of the findings for practice, clinical education and research will be discussed. The limitations to this study will also be presented.

CHAPTER 6: GENERAL CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

The aim of the study was to evaluate the management of rural ward-based primary health care in UDM in KwaZulu-Natal; make recommendations for further research; and propose an evaluation framework for primary health care in rural areas. Chapter five presented the results of the study. Chapter six provides the general conclusions of the study in relation to the research objectives and general conclusions that emerged from data.

The chapter concludes by making appropriate and practical recommendations that will address the shortcomings in the management of rural-ward based PHC in UDM. Areas for further research have been identified to provide greater insights into PHC in rural areas.

6.2 General Conclusions

6.2.1 Objective 1: Evaluate current performance systems to provide effective and efficient PHC

Monitoring and evaluation of the implementation of performance management systems can lead to effectiveness of the CCG programme and improvement of health outcomes in the rural wards of UDM. Respondents were required to indicate their views about performance management.

PHC performance management systems currently being used were not providing the desired performance management outputs. There were no performance bonuses or incentives for staff and therefore no increases in performance. The oversight roles of the national, provincial and district leadership to monitor the performance of PHC services are also ineffective and inefficient. There is little effort demonstrated locally that strives to support the clinics and outreach teams.

The study revealed that clinics were not regularly giving feedback to the respondents and also not consistently conducting performance reviews, highlighting the inconsistent implementation of performance management systems at the clinics.

The lack of management and supervisor support contributes to high rates of dissatisfaction amongst CCGs and poor quality of work from community caregivers.

The findings established that the current PHC performance management systems are not consistent with the findings reported in former studies. They are currently implemented for compliance only and therefore, yield less positive the health outcomes. CCG supervision was not done on a daily basis due to distances but it was done once a week. Some OMs were not clear if they were responsible for CCGs which might be the reason for inconsistencies in the management and supervision of CCGs in some municipal wards.

Respondents viewed user-friendly systems, timely reporting and the use of reports to implement changes as factors that determine good performance management systems in PHC. Similarly, respondents raised the issue of not only the availability of data, but the availability of accurate and complete data in order to make accurate decisions regarding improving service excellence.

6.2.2 Objective 2: Identify the role of the Operational Manager (OM) in the provision of PHC.

Operational managers are tasked with the management of the clinics. They are therefore responsible for policy and strategy implementation, leadership and governance, clinical care, resources management, information management, monitoring and evaluation.

6.2.2.1 Policy and strategy implementation

OMs actively participate in population-based planning and service delivery. This is done through communities. Other government departments and sectors are also involved in the planning and delivery of local health services. Different stakeholders work together effectively to improve service delivery to the community. Health promotion and the prevention of disease is key to ward-based health services. All OMs (100%) indicated that they were responsible for the implementation of departmental policies and strategic plans. They also commented about the factors that hindered them in the effective implementation of these areas, for example, inadequate staff and limited budgets.

6.2.2.2 Leadership and governance

OMs were also responsible for leadership and governance in PHC. Leadership and governance refers to the strategic direction provided by management through proactive leadership, planning and risk management, supported by the clinic committee as well as the relevant supervisory support structures, including the strategic functions of communication and quality improvement. All OMs (100%) indicated that they were responsible for writing reports, allocating resources and ordering supplies, medicines and other clinical support services like equipment.

6.2.2.3 Clinical care

Respondents indicated that OMs spent most of their time on clinical care, allocation of resources, clinic budget management, supply chain management and writing reports. They raised concerns about doing more clinical work to reduce queues and complaints instead of focusing more on management and leadership issues iand spending 80% of time on management and leadership and 20% on clinical care. Therefore, the 80:20 norm cannot be achieved.

6.2.2.4 Resources management

All (100%) of respondents indicated that resources where not adequately provided to the wards. OMs are expected to deliver more health services with fewer resources, even though provision of resources is always inadequate. For instance, equipment is sometimes old and breaks easily; and vehicle accidents and repairs are too costly. Another issue raised by respondents was that other outreach teams are not keen to share transport. With the current budget cuts and cost containment measures from National and Provincial Treasuries districts are asked to prioritise. The OMs therefore should be wise in making these decisions within the high expectations of the communities. Otherwise respondents indicated inadequacy of resources compromising day-to-day running of a clinic.

6.2.2.5 Information management

OMs are also responsible for the collection and validation of clinic data and submission to the hospital or CHC. One respondent stated that "*Information becomes in accurate or has gaps because we do not have time to validate data".* They are required to hold clinical audits on a monthly basis to identify problems and

develop action plans. Another respondent stated that *"We don't have time for clinical audits except those driven by the DCSTs"*. When asked about the cause, they indicated that they often did not have time due to shortages of staff.

6.2.2.6 Monitoring and evaluation.

Another critical role of OMs is oversight and accountability for service delivery in PHC. This is done within the governance structures, namely the clinic committee. Operational managers monitor and evaluate operational plans to ensure that health targets are achieved. In line with this role, a large number of respondents stated that they were supported by the clinic committees and political leadership, while others were not getting support. The respondents cited such positive responses as *"Our Inkosi is very supportive e.g. the male medical circumcision (MMC) camps are done in his traditional authority where he also teaches boys"; "Other leaders like ward committees do participate in our community health programmes".* Negative responses include: *"In my ward there is no political support; the ward councillor does not come on board for our meetings; sometimes there is interference in the ward and the clinic".*

Monitoring and evaluation was assessed where the variables identified were reporting; performance reviews and feedback; and supervision. OMs were responsible for the communication of the clinic performance through monthly reports and meetings. The respondent indicated that they are responsible for writing reports. The findings showed that the majority of respondents (97.5%) were submitting monthly reports; whilst only 88.2% of the respondents were submitting their daily feedback reports at the clinic and 82.5% were submitting reports weekly. In essence, reports should indicate the activities of CCGs accomplished against the set targets; any challenges identified; and measures to overcome them taken.

In this study, CCGs also suggested that they would perform better if they are supported with mobile phones and SMS networks. When asked about enablers to deliver PHC, respondents indicated management support, availability of information and increased staffing through implementation of the new PHC structure as important.

The findings identified that OMs were responsible for various functions, namely clinical care, human resource management, budget management, ordering of supplies, (SCM) activities and writing reports. Management functions included planning, organising, leadership and controlling. However, they cited that they were doing more clinical activities than management activities due to shortages of clinical nurse practitioners at the clinics.

OMs recommended the following factors that can assist them in overcoming challenges experienced in the provision of ward-based PHC services:

- Implementation of a new PHC organizational structure;
- Procurement of adequate vehicles for WBOTs;
- Community participation in health issues;
- Provision of adequate budgets; and
- Increasing the number of CCGs.

6.2.3 Objective 3: Identify the factors affecting the performance of CCGs

CCGs are viewed as the backbone of health care services especially in rural areas. The findings indicate that CCGs perceive the CCG programme as the most effective to support PHC activities in the community. The enablers to CCGs' performance included the transport, increased stipend, recognition, management and community support. There was significant satisfaction with the selection and allocation of CCGs undertaken by the community leaders.

CCGs were accepted from a moderate to a high extent by the supervisor, their clinic committees and the public. However, there were instances where the Clinic Committees seem not to accept CCGs which posed a risk to how they perform in the community and the support they receive to deliver services. Some CCGs (54.8%) indicated that relationship they have amongst themselves as a team were rarely affecting them, while others (37.4%) indicated that this was always a problem. This analysis found a split with respondents. Political interference also plays a role as a disabling factor for the CCGs to perform their work.

Both CCGs and OMs perceive that the allocation of CCGs in the wards was not adequate. The different wards are not resourced the same. However, none of the wards have less than 500 households with 40% of the facilities having more than 10,000 households. Only 20% of these facilities have more than twenty-five (25) CCGs. This means that 20% of the CCGs in these highly populated wards have to cover 500 and more households per person, making the workload of each CCG insurmountable.

More than 95% of CCGs viewed the availability of transport, resources, training and the provision of a stipend to be strong enabling factors for them to perform their work. On the other hand, the clinics are only able to support them with mostly supplies and moderate equipment, and minimal financial and human resource support.

Even though the managers regarded community support as an enabling factor to deliver PHC services, their management was mostly though reports submitted only once a month by the CCGs. There is minimal support given in terms of visits to the wards, and assessment of the work done by CCGs.

Just over a half of the CCGs indicated that sometimes they were offered development for formal qualification as part of career pathing. Most of the training offered was on coaching, and less on specialised training.

The findings indicate that CCGs participate as TB tracers mostly (66%); then in school health services mostly (63% of the time); while there is low participation in family health teams (37%) and roving teams (26%).

Most of them (83%) were frequently involved in patient referrals, community dialogue activities and behavioural change campaigns.

Enabling factors to CCG productivity were transportation, resources, training and increased stipend, all were indicated as very important by 85% and more of the respondents. The stipend was the highest enabler at 98%, while only 2% regarded the stipend as not important.

The relationship with the general CCG team was regarded to be the biggest disabling factor (32%) always (all the time). Political interference was the second highest rated disabling factor always (5%).

Lack of feedback on performance was regarded sometimes as a disabling factor to performance (43%). Lack of home-based kits and lack of supervision were least disabling factors (26% and 17% respectively).

About 73% of CCGs regarded themselves as being adequately trained; while 36% was very adequately trained. Only 8% of the CCGs regarded themselves as being less than adequately trained. They indicated that the training provided in areas of health promotion, immunisation and oral communication enabled them to do their work. The level of training in literacy, and written communication were regarded as not being strong enablers for them to do their work adequately. Most of the CCGs felt that they were accepted by their supervisors, clinic committees and the general public. However, 18% felt they were not accepted by their clinic committees.

6.3 Recommendations in relation to the research objectives

The recommendations in this study are based on the objectives of the study. The recommendations are supported by the statistical findings from data analysis. A systems approach was used to discuss the recommendations of the study.

The following recommendations were based on the research findings with respect to the evaluation of management of ward-based primary health care in UThukela District. These recommendations will benefit local communities, in particular those who are relying on the public health care system. The limitations of the study were also considered in establishing the following recommendations:

6.3.1 Policy Development

The success of any government programs is dependent on the process of policy-making. The results of this study are intended to inform policies about the management of PHC services in rural wards. The lessons learnt from Rwanda's policy-making were a participatory approach which involved communities in identifying their own problems unlike in South Africa where the current national and provincial policies on community participation are mainly on paper (theoretical).

Policy-makers should be realistic by being continuous learners and adapting all health service delivery strategies to the reality on the ground. Proper engagement of communities should be initiated at the policy formulation stage.

A review of monitoring and evaluation policy is required to clearly state the tools, activities and benefits of the implementation of the M & E performance management systems.

6.3.2 Capacity development

Current PHC models reflect challenges of coordination, supervision, training and lack of evidence impact. Health systems should look at ways that shift expenditure to low cost interventions and programmes where the current PHC re-engineering model integrates CCGs into WBOTs. South Africa therefore needs to invest more in CCGs and WBOTs by planning resources finances, staff and vehicles in order to improve health outcomes.

The use of point-of-care technology by the WBOTs should be strengthened especially in deep rural wards. Therefore, biomedical technology will enhance point-of-care diagnosis, for instance, rapid home test kits for HIV diagnosis and pregnancy tests. This will have a great impact on health care provision at the periphery of the health system, especially in the rural areas, and reduce patient loads at clinics, reduce waiting times and costs. The point-of care technology will also increase case detection and instant referral to appropriate levels, thereby enhancing clinical care.

6.3.3 Management and leadership development

The performance of CCGs was not consistently supervised and managed, both at the community and the clinic levels. Management teams should be outcomes-driven and therefore design and implement results systems that focus on the achievement of outcomes, that is, logical thinking. Effective management and leadership practices are crucial in the achievement of health outcomes. Top management should therefore ensure the development of OMs and PHC Supervisors in order to increase the level of competence and thereby improve service delivery at the PHC facilities.

6.3.4 Professional education and practice

Health care worker training institutions should align their curricula with the strategic direction of the NDoH and Provincial DoH so to produce a PHC and community oriented cadre. Currently, newly qualified professional workers are overwhelmed by doing outreach programmes and door-to-door home visits.

The local strategies need to be on par with health policy reforms. Success is dependent on political and management will. The districts need to align resources with the increasing health outcomes for PHC services.

6.3.5 Review of the CCG programme in relation to the Basic Conditions of Employment Act (Act No. 75 of 1997)

The Basic Conditions of Employment Act (Act No. 75 of 1997) was aligned to the Constitution of the Republic of South Africa (Act No. 108 of 1996) and regulates the basic conditions of contractual or permanent employment. The following factors were indicated in the results of the study and should therefore be reviewed in CCGs programme:

- **Full-time appointment**

CCGs are appointed on a yearly-contract from April to March each year which makes it not possible for them to enjoy benefits like pension, insurances and medical aid schemes. Should CCGs opt for these, they often lapse since they usually receive the stipend late in May or June.

- **Improving working conditions**

CCGs walk long distances in bad weather conditions. They need protective clothing like reflector jackets, boots and umbrellas. They also need to be assisted with transport.

- **Provision of resources**

CCGs indicated that resources are often inadequate for them to be more productive. They need adequate home-based kits, equipment, supplies, mid-upper arm circumference (MUAC) tapes and Vitamin A.

- **Changing stipend to salaries**

If CCGs become full-time employees, they will receive salaries like any other government employee. Therefore, they will enjoy employment benefits like housing allowances, pension allowances, medical aids and normal leave.

- **Putting effective career pathing strategies in place**

Management should plan and implement formal training and development programmes for CCGs in order to career path them so that they can move up the career ladder. For example, a CCG can be clerk or a nurse in the health department or in any institution or municipality.

- **Putting effective monitoring and evaluation systems for CCGs in place**

Monitoring and evaluation of CCG programmes and the entire ward-based PHC services in rural wards is required in order to identify shortcomings and implement continuous improvement programmes in health service delivery on a regular basis. This will to improve outcomes and allow roleplayer to make sound decisions and manage future programmes or projects.

The Department of Health has systems in place to measure PHC performance. Monitoring and evaluation occurs at various levels, namely ward level through OSS oversight structures, PHC supervisors and management teams; and at a local municipality or sub-district level and district municipality levels by facility managers, programme managers and M&E teams.

- **Performance management systems to be implemented formally**

Performance management systems are also used for feedback. Performance management systems serve as evaluation and performance appraisal tools used to assess if employee and organisational performance enable the organisation to achieve its goals. Therefore, these should be planned and implemented formally so that any strengths identified are upheld and weaknesses addressed accordingly.

The availability of vehicles would address the distances they travelled, thus enabling them to visit three or more households per day. Increased stipends, recognition and community support would motivate CCGs to do more despite the bad conditions under which they work.

6.3.6 Communication and Coordination

Effective use of the latest technology is needed to fast-track rural ward-based PHC. Broadband and smartphones should be provided to link CCGs to the national and provincial health system. This can be achieved by the provision of SMS networks for CCGs. The SMS network will allow just-in-time disease surveillance, child and maternal health monitoring, mobile training and the capturing of vital events, interventions and referrals. Mobile technology can assist OMs with M&E as CCGs will collect both household and individual health information at the point of service delivery. The mobile health (mHealth) systems also assist with support for CCGs at the point of service delivery. These were also confirmed by literature and studies conducted in international and Sub-Saharan Africa countries (Perry and Zulliger 2012:54).

These systems also improve database maintenance of CCGs and other community health workers to track progress on health outcomes in rural wards.

6.3.7 Development of the sub-district health model

The hospital or Community Health Centre (CHC) CEO is responsible for health care delivery in the sub-district, including PHC services. Currently, the PHC manager reports to the deputy nurse manager in UDM. Management was perceived as not fully supporting ward-based PHC services. There was often abdication of responsibility. There were various concerns about top management providing guidance and accepting responsibility to support ward-based PHC service delivery.

Respondents cited a lack of resources, indicating a lack of commitment by top management in allocating resources to PHC facilities. Commitment by top management involves allocating resources, training of staff, guidance and support, and monitoring performance at various levels. Various problems have been raised in facility reports and discussions: for example, lack of support of PHC services by the deputy nurse manager or non-cooperation by the PHC manager. The sub-district model provides that the PHC manager reports directly to the CEO in order to increase support and accountability of PHC performance. Closely linked to this recommendation was the fact that this guidance and support should be inculcated down to the lowest level of the clinic.

6.3.8 Strengthening the implementation of Operation Sukuma Sakhe

The PHC reengineering model provides a valuable tool in the quest for the effective provision of ward-based PHC services in the district municipality. Professionals should engage local municipalities, government and non-government organisations, businesses and civil societies in order to address cross-cutting community issues like health, education, social problems, unemployment and other social determinants of health. As part of public health, OMs should work with NGOs and other health care providers along with local communities and civil societies within the OSS approach to promote health, prevent illness and reduce further complications, thereby ensuring that integrated and quality care is provided for their whole community, as well as disaster management.

OSS structures at local and district municipality levels should pursue social planning and social action, thereby achieving locality development. Social planning uses information and analysis of community profiles in order to address issues like teenage pregnancy and substance abuse. Social action will then involve resource mobilization and empowerment of low socio-economic communities with subsequent local development whereby communities will work together to improve their state of being through job creation opportunities and community project management.

The structure of municipal ward-based PHC Outreach Teams (WBPHCOTs) should consist of management and governance structures. These structures should also be linked to Community-Based Organisations (CBOs) as these have a major role to play in community participation and development so that communities take charge of their health-related issues. The Ward Committee or War Room should increase commitment to designing community-specific interventions with the engagement of community structures and government departments and local municipality through social planning, social action and locality development.

It can be seen that there are varying levels of leadership and governance in UDM. There is a need to recommend ward-based strategies to improve leadership and governance in rural wards. OMs therefore should be wise in making these decisions

within the high expectations of the communities. Respondents indicated the inadequacy of resources as compromising the day-to-day running of clinics.

These recommendations will benefit local communities, in particular those who are relying on the public health care system.

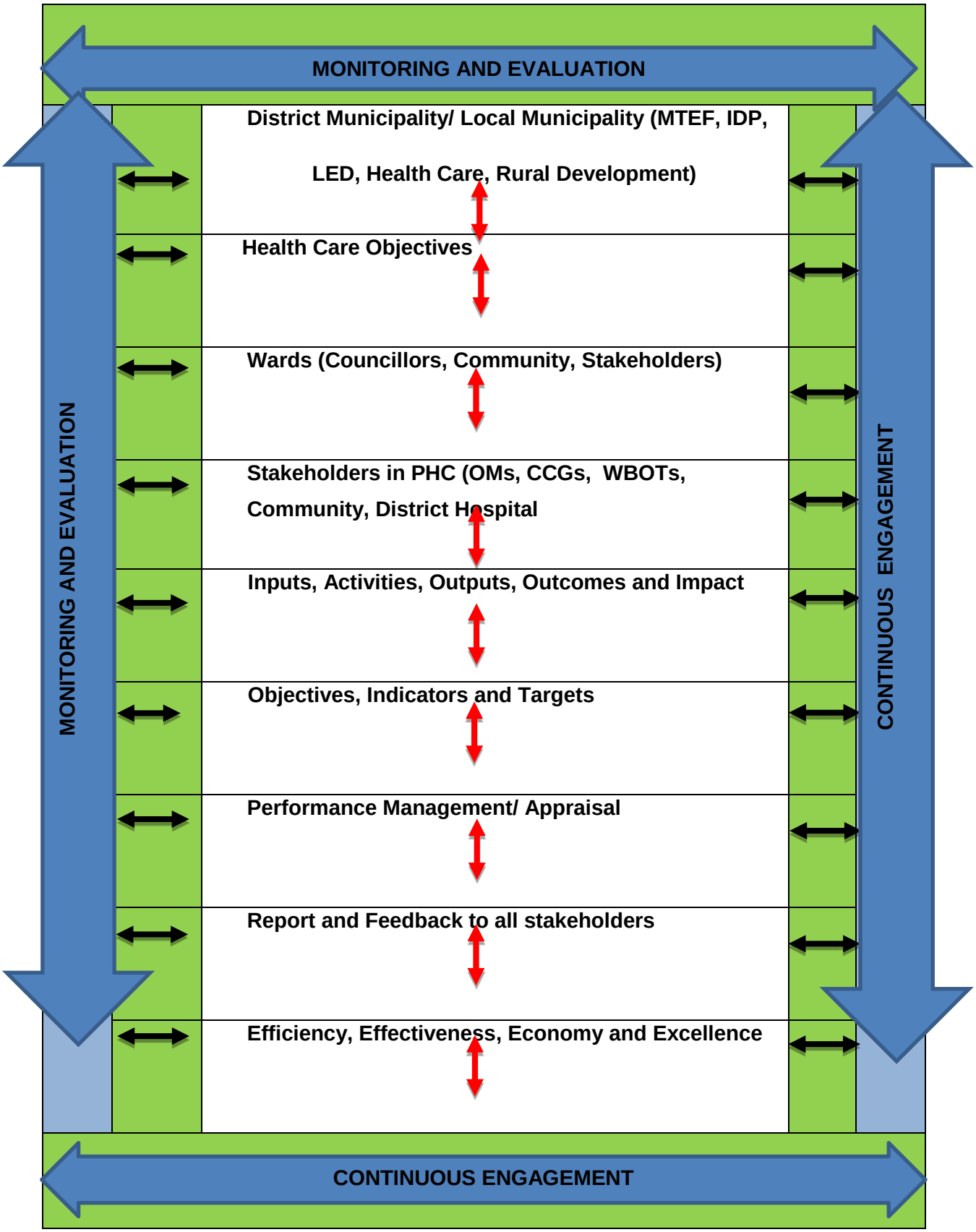
6.3.9 Establishment of UThukela District Health Council (UDHC)

The district and local political leaders should be champions of ward-based health services, including PHC. This could help curb the challenges of malnutrition and late booking for antenatal care so that pregnant mothers are screened and fast-tracked on treatment of health and educated on health issues even after delivery. The district municipality and local municipalities should fast-track the establishment of the District Health Council (DHC) as provided for in the National Health Act, 2003 (Act No. 61 of 2003) and KZN Health Act, 2009 (Act No.1 of 2009). The DHC is responsible for the promotion of cooperative governance and advises the members of the Executive Council through the Provincial Health Council on health matters, including health service delivery in the district.

6.4 Recommended integrated ward-based PHC model for UThukela District Municipality

Figure 6.1 below represents the proposed model which is learnt from the logic model.

Figure 6.1: Recommended integrated ward-based PHC model for UThukela District Municipality



The model comprises various components highlighted in Figure 6.1 above which are interrelated and in continuous engagement with one another. The model will allow for M & E activities which are briefly discussed below:

6.4.1 Continuous Engagement

Theories of change determine why and how activities lead to outcomes with the assumption that outcomes, whether intermediate or long-term, are due to short-term activities, and these result from interventions implemented.

Continuous stakeholder engagement is required in order to achieve excellence in service delivery. The district health teams should make interactions, relations and cooperation with various stakeholders within the district municipality possible at all times.

Continuous engagement promotes synergy and the achievement of good results during which gaps are identified early and interventions to resolve them are implemented. Therefore, there could be an enhancement of collaborations, partnerships and networks amongst stakeholders.

6.4.2 Monitoring and evaluation

Monitoring and evaluation is crucial for the successful implementation of organisational policies, programmes and projects. Monitoring and evaluation includes oversight by the political leadership within the district municipality and senior management of the Department of Health through OSS structures.

All key stakeholders should be involved in the development of M & E plan for ward-based PHC services. M & E plan include all key areas of the M & E system which will guide how the M & E system will function. The oversight structures are able to unlock bottlenecks and mobilise human, financial and material resources for service provision.

The study indicates that human and financial resources are inadequate. The M & E plan should also determine the amount of resources required to implement the M & E plan and other PHC activities and projects.

6.4.3. District Municipality/Local Municipality (MTEF, IDP, LED, Health Care, Rural Development)

Stakeholders include the district municipality, local municipality and the community in the wards. At a ward level, continuous engagement occurs between the councillor and the community as well as other stakeholders, namely government departments, non-government organisations and civil societies. Continuous engagement will then inform the strategies, goals and priorities which are understood and shared during the process and these are translated into IDPs and Annual Performance Plans. The district municipality will provide technical support to the sub-districts and municipal wards.

6.4.4. Health Care Objectives

Health Care objectives should be shared with stakeholders. This can be done during continues engagement and monitoring and evaluation. Stakeholders will monitor the performance of PHC programmes and projects, as well as progress on the achievement of the objectives.

6.4.5. Wards (Councillors, Community, Stakeholders)

These are key external stakeholders who should be continuously engaged in health planning, strategy implementation and the M&E plan. M &E involves the monitoring and evaluation of the key aspects of PHC programmes including household visits, household profiling, departmental and municipal interventions. At a municipal and ward level, monthly statistics are generated and analysed at fixed and mobile clinics. At a household level, progress against the initial assessment, for example, child weight, is mapped and recorded for further analysis.

6.4.6. Stakeholders in PHC (OMs, CCGs, WBOTs, Community, District Hospitals

Stakeholders refer to internal and external stakeholders. Internal stakeholders include hospital, CHC and PHC staff. Furthermore, PHC stakeholders refer to the OMs, CCGs and district hospital. A clear M & E framework needs to be planned and agreed upon by all key stakeholders. The Planning and M&E units at the district and hospital or CHC level are responsible to drive the M & E framework. This serves as a plan for systematic M & E. According to Markiewicz and Patrick (2015:232), the

framework includes expected results (outcomes and outputs); Indicators and targets; Data collection methods; time schedules and frequency; Responsible persons; means of verification; resources and risks. All stakeholders in PHC should actively participate in designing and implementing M & E plans in order to achieve improved performance and demonstrable results. This should be viewed as an ongoing process where management and stakeholders constantly get feedback, learn and continuously improve which is a doing, learning and improving process (UNDP 2009:248).

6.4.7. Inputs, Activities, Outputs, Outcomes and Impact

In this model, the arrows indicate links (interactions) between resources, activities, outputs and outcomes. The amount and types of resources, activities, outputs and outcomes will vary from clinic to clinic.

Stakeholders should determine how the government and departmental projects, policies and programmes would contribute to the actual outcomes and impacts. Stakeholders should also agree on the performance outcomes to be monitored and evaluated. The M & E teams use relevant evaluation tools to collected information for input, activity, output, outcome and impact evaluations. It is therefore, imperative to determine the causal relationships between inputs, activities, outputs, outcomes and impacts.

6.4.8. Objectives, Indicators and Targets

Objectives, indicators and targets are used to assess if the intended results are achieved. It is critical that stakeholder engagement emphasises the identification of objectives, indicators and targets so that these are well defined in the DHP with assigned responsibilities for all PHC programmes. PHC performance will be reviewed monthly and quarterly against the objectives, indicators and targets. These are driven by the planning, M & E units at a facility, district level and provincial level. Data is crucial in making informed decisions. Accurate and timely information should be available for staff and key stakeholders during DHMT meetings, quarterly review and audit meetings.

6.4.9. Performance Management and Appraisal

Management is also responsible for performance appraisal of their staff. This entails measuring employee actual performance against the standards set in determining the achievements of goals and also to identify any strengths and weaknesses in employee performance or take corrective action if required. If done properly, performance appraisal helps identify staff for incentives and serves as a motivation for staff to excel. However the study found gaps in performance management systems and that there was a lack of feedback.

6.4.10. Report and Feedback to all stakeholders

Once the reports are submitted to the facility, they are validated, analysed and signed off by the head of the institution. The reports are then shared with the management teams and staff. Feedback could be communicated formally and informally. Quality improvement plans are then developed, implemented and monitored.

It is likely that the following proposed benefits for the recommended model will be achieved in the short-term and long term;.

- Improved development and implementation of health policies;
- Enhanced management of resources;
- Improved stakeholder consultation/ cooperative governance and coordination
- Improved livelihoods due to better health management;
- Improved performance monitoring systems; and
- Improved research and innovation.

Externally, management should use community structures like the ward councillors, ward committees, ward task teams and traditional leaders to share critical health information and address socio-demographic issues that impact on health.

- **Efficiency, Effectiveness, Economy and Excellence**

Interventions should be evaluated in terms of effiency, effectiveness and excellence. Effectiveness is the ratio between inputs and outputs and effectiveness is the relationship between outputs and outcomes. Effectiveness assesses if the interventions are achieving the intended outcomes - for example, any change in

behaviour, increased clinic attendance, increased knowledge, policy implementation or improved infrastructure.

Efficiency refers to the costs of providing PHC services. Resources are planned and allocated to implement services and achieve the desired results.

Economy refers to the cost-effectiveness and value of delivering ward-based PHC services. Future evaluations will also enhance accountability at all service delivery levels and evaluate the interventions of CCGs and WBOTs in relation to the cost-effectiveness of the interventions as compared with baseline interventions and model programme outcomes to estimate the programme's full impact on community life years in line with the DoH outcome "long and healthy life for all South Africans". Using this model will assist decision makers in determining health promotion and disease prevention activities to support by informing policy and funding models for PHC service delivery in rural municipal wards.

Monitoring and evaluation will take place at all levels, namely, provincial, district, local municipality and ward levels to achieve local accountability with the latter. This can be through reports and facility visits. The District Manager would convene monthly coordination and quarterly district performance review meetings with the DHMT to monitor progress, address challenges and review the implementation of remedial actions. Monitoring and evaluation would promote the effective, efficient and economic use of resources. For example, cost-effectiveness of CHW interventions and management activities at the clinics can be enhanced through this model. The M&E policy should clearly spell out the relationship between the M&E system and performance management system. The components of the model are viewed as enablers to achieve excellence in the organisation.

- **Results, outcomes-based M&E Systems**

Management focus is on results and outcomes. Therefore, management should focus on building results-based M&E (RBME) systems.

According to Govender (2011:97), the RBME system is a public management tool used to track progress and demonstrate the impact of a given project, programme or policy based on the evidence presented by the system. It moves beyond the

management of inputs and outputs and focuses on outcomes and impacts. The outcomes approach emphasises on results or outcomes rather than an activity of the department or programme. Whilst stakeholders agree on results or outcomes, emphasis should be put on resource allocation in order to achieve the objectives.

Outcomes-based M&E seeks to close the gap within the traditional M&E framework, which were driven by compliance with regulation and managerial deliverables rather than service delivery outputs. Key to the success of any functional M&E system is the constant communication of M&E results to ensure that political leaders, management and stakeholder are made aware of the shortcomings and impact of government or departmental programmes in the provision of ward-based PHC services.

6.5 Recommendations for further research

Firstly, further research should be undertaken on the four streams of the PHC re-engineering model, namely WBOTs (Family Health Teams (FHTs), Integrated School Health Teams (ISHTs), district clinical specialist teams (DCSTs) and GP contracting as well as community structures like ward councillors.

Secondly, the perceptions and attitudes of health practitioners with regard to the management of ward-based PHC in the districts should be investigated. Coupled with this, the views of other professionals, such as programme coordinators, district clinical specialists and pharmacists should be included in the study.

Thirdly, further research could be conducted on the integration of CCGs into the normal management of out-patient treatment in respect of ailments like TB and HIV/AIDS and non-communicable diseases like hypertension, diabetes and asthma. An improved utilization of CCGs could be studied to see how effective it could be in helping to deal with out-of-hospital treatment.

Finally, a study should be undertaken to establish the extent of cooperative governance amongst the different government departments to make the wide scale utilisation of CCGs possible.

6.6 Dissemination of findings

A dissemination strategy has already been developed and discussed with the supervisor and senior management of the Department of Health. Dissemination will be through district management team (DHMT) meetings, provincial meetings, peer review journal papers and conference presentations.

6.7 Conclusion

The chapter outlined the main conclusions arising from the study and the appropriate recommendations in relation with the research objectives. At least in KZN, the home-based care programme that was driven mainly by the NGOs was integrated into the health care system in 2010 resulting in some working conditions being improved whilst others did not. The results of the study should also influence the formulation of policies, programme, methods and interventions which will enable UDM to improve the health outcomes. The study has fully answered the research objectives.

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Appendices

Appendix A: Request for authority to conduct a study: HOD

health

Department:
Health
PROVINCE OF KWAZULU-NATAL

32 Lyell Street

Ladysmith

P/Bag X9958

Ladysmith

3370

Tel: 036 6312202

Fax: 036 6310530

E-mail:
thandeka.zulu@kznhealth.gov.za

www.kznhealth.gov.za

31 March 2014

Dr E Lutge

The Chairperson

Health Research and Knowledge Management Committee

KwaZulu-Natal Department of Health

Private Bag x 9051

PIETERMARITZBURG

3200

Dear Madam

REQUEST FOR AUTHORITY TO CONDUCT RESEARCH IN THE PUBLIC HOSPITALS OF THE KZN DEPARTMENT OF HEALTH.

I am employed by the Department of Health as a District Manager at UThukela Health District. I'm registered for a Doctor of Technology Degree with the University of Technology. I am expected to conduct research as a requirement for the degree.

The title of the research is **"An Evaluation of the management of rural ward-based Primary Health Care: A case study of UThukela District Municipality in KwaZulu-Natal".**

The study will be conducted to four hundred CCGs in UThukela District. (n = 400). Another sample will comprise the twenty Operational Managers in both fixed and mobile clinics (n = 20). The sample size of the study will be four hundred and twenty participants.

I hereby request the authority of the Department of Health to undertake this study in the public hospitals of KwaZulu-Natal department of health. The study results and recommendations will be shared with senior management, policy makers and other stakeholders during sub-district, district and provincial meetings.

I have also sent the proposal to the DUT's Ethics and Biosafety Research Committee for approval. It is envisaged that the study will be commenced as soon as both the approvals are secured.

Thank you for your support

[redacted]

MARGARET THANDEKA ZULU

(DTECH STUDENT: DUT 2013)

STUDENT NO.: 21143620

Appendix B: Letter of request: CEO

health

Department:
Health
PROVINCE OF KWAZULU-NATAL

32 Lyell Street

Ladysmith

P/Bag X9958

Ladysmith

3370

Tel: 036 6312202

Fax: 036 6310530

E-mail:
thandeka.zulu@kznhealth.gov.za
www.kznhealth.gov.za

Reference: DTech DUT

Enquiries: Mrs M.T. Zulu

Telephone: 083 407 9964

31 March 2014

The Hospital/CHC CEO

_____

_____

_____

Dear Sir/Dr/Madam

Permission to conduct research in your clinics

I am currently employed by the Department of Health as a District Manager in the UThukela Health District. I'm registered for a Doctor of Technology Degree with the Durban University of Technology and I am expected to conduct research as a requirement for the degree. Authority has been granted by the Head of Department through the Health Research and Knowledge Management Committee chaired by Dr E. Lutge (Chairperson). The study aims at evaluating the rural ward-based community care in the UThukela District of KwaZulu-Natal.

The topic of my study is **An Evaluation of the management of rural ward-based Primary Health Care: A case study of UThukela District Municipality in KwaZulu-Natal.** The research will be conducted in rural wards in 5 local municipalities of the UThukela District. A copy of the proposal is attached as an annexure.

I hereby request permission to undertake this study in the clinics in your sub-district. The study will be conducted with four hundred CCGs in UThukela District (n = 400). Another sample will comprise the twenty Operational Managers in both fixed and mobile clinics (n = 20). The sample size of the study will be four hundred and twenty participants (n=420). The study results and recommendations will be shared with senior management, policy makers and other stakeholders during sub-district, district and provincial meetings. The same will also be communicated to you.

You are free to contact me on 083 407 9964 should you have any queries.

Thank you for your support.

[redacted]

MARGARET THANDEKA ZULU

(DTECH STUDENT: DUT 2013)

STUDENT NO.: 21143620

Appendix C: Invitation to participate in the study: CCGs

health

Department:
Health
PROVINCE OF KWAZULU-NATAL

32 Lyell Street

Ladysmith

P/Bag X9958

Ladysmith

3370

Tel: 036 6312202

Fax: 036 6310530

E-mail:thandeka.zulu@kznhealth.gov.za

www.kznhealth.gov.za

Reference: DTech DUT

Enquiries: Mrs M.T. Zulu

Telephone: 083 407 9964

31 March 2014

Dear Community Caregiver

INVITATION TO PARTICIPATE: STUDY TOPIC: AN EVALUATION OF THE MANAGEMENT OF RURAL WARD-BASED PRIMARY HEALTH CARE: A CASE STUDY OF UTHUKELA DISTRICT MUNICIPALITY IN KWAZULU-NATAL

I am currently employed by the Department of Health as a District Manager in UThukela Health District. I'm registered for a Doctor of Technology Degree with the Durban University of Technology and I am expected to conduct research as a requirement for the degree. Authority has been granted by the Head of Department through the Health Research and Knowledge Management Committee chaired by Dr E. Lutge. The study aims at evaluating rural ward-based community care in the UThukela District Municipality of KwaZulu-Natal.

The procedure will involve responding to the self-administrated questionnaire about the study and completing the demographic data sheet. Participating in the study will take you about 15 -20 minutes. Ethical protocol will be highly observed. You are

assured of anonymity and all information of the study will be kept in confidence. The study data will be coded and therefore, not linked to your name. All study data will be kept in a secure place and your identity will not be revealed during the study and when publishing the results. Your participation is voluntary and you have the right to withdraw at any time should you wish to do so.

The study results and recommendations will be shared with senior management, policy makers and other stakeholders during sub-district, district and provincial meetings. The same will also be communicated to you.

You are free to contact me should you have any questions or queries about the study or about being a subject at:

Work: 036-361 2202 ext. 103

Cell: 083 407 9964/ 082 433 6756

Thank you very much for your help.

[redacted]

MARGARET THANDEKA ZULU

(DTECH STUDENT: DUT 2011)

STUDENT NO.: 21143620

I have read this covering letter and voluntarily consent to participate in the study.

RESPONDENT'S SIGNATURE: _____DATE: _____

Appendix D: Invitation to participate in the study: OM

health

Department:
Health
PROVINCE OF KWAZULU-NATAL

32 Lyell Street

Ladysmith

P/Bag X9958

Ladysmith

3370

Tel: 036 6312202

Fax: 036 6310530

E-mail:thandeka.zulu@kznhealth.gov.za

www.kznhealth.gov.za

Reference: DTech DUT

Enquiries: Mrs M.T. Zulu

Telephone: 083 407 9964

31 March 2014

Dear Operational Manager

INVITATION TO PARTICIPATE: STUDY TOPIC: AN EVALUATION OF RURAL WARD-BASED PRIMARY HEALTH CARE: A CASE STUDY OF UTHUKELA DISTRICT MUNICIPALITY IN KWAZULU-NATAL.

I am currently employed by the Department of Health as a District Manager in UThukela Health District. I'm registered for a Doctor of Technology Degree with the Durban University of Technology and I am expected to conduct research as a requirement for the degree. Authority has been granted by the Head of Department through the Health Research and Knowledge Management Committee chaired by Dr E. Lutge (Chairperson). The study aims at evaluating rural ward-based community care in the UThukela District Municipality of KwaZulu-Natal.

The procedure will involve an interview with the researcher. Participating in the study will take you about 30-45 minutes. Ethical protocol will be highly observed. You are assured of anonymity and all information of the study will be kept in confidence. The

study data will be coded and therefore, not linked to your name. All study data will be kept in a secure place and your identity will not be revealed during the study and when publishing the results. Your participation is voluntary and you have the right to withdraw at any time should you wish to do so.

The study results and recommendations will be shared with senior management, policy makers and other stakeholders during sub-district, district and provincial meetings. The same will also be communicated to you.

You are free to contact me should you have any questions or queries about the study or about being a subject at:

Work: 036-361 2202 ext. 103

Cell: 083 407 9964/ 082 433 6756

Thank you very much for your help.

[redacted]

MARGARET THANDEKA ZULU

(DTECH STUDENT: DUT 2011)

STUDENT NO.: 21143620

Appendix E: Letter of information and consent

Please complete the following as confirmation of your willingness to participate in this research project: **An evaluation of rural ward-based primary health care: a case study of uThukela district Municipality in KwaZulu-Natal.**

I am currently undertaking a research project as part of my studies towards a Doctoral degree in Technology: Public Management at the Durban University of Technology. The study aims to evaluate rural ward-based primary health care in UThukela District Municipality in KwaZulu-Natal.

Would you agree to complete a questionnaire for the study? The questionnaire will take approximately 15-20 minutes. Participation is voluntary and you are free to withdraw from the study at any time without giving reasons, and without prejudice or any adverse consequences. The information you give will only be used for research purposes and will be aggregated with other responses and only the overall or average information will be used. Your identity and individual answers will be kept totally confidential. Should you wish to discuss this further please feel free to contact me or my supervisor (Dr I. Govender, telephone: 031 373 5694 or email to: ivang@dut.ac.za, or the IREC Administrator, Lavisha Deonarian: 031 373 2900 or LavishaD@dut.ac.za).

Your assistance will be much appreciated,

Yours faithfully,

I,……..……..……..….,have adequately discussed the study with the researcher, understand that I may withdraw from it at any time without giving reasons, and voluntarily agree to participate by completing a questionnaire.

Signature: …… Date: .....

Appendix F: Questionnaire for CCGs

Respondent's Ref. No:

Study Site:

Date: / / / 1 4

Ward No:

Municipality:

Clinic:

Health District:

PART 1: DEMOGRAPHIC INFORMATION 1:

1. Please indicate with a cross (X) the information that is relevant to you. Numerals are for coding purposes.

1.1 Race (For statistical purposes only)

1	African	
2	Coloured	
3	Indian	
4	White	
5	Other	

1.2 Gender

1	Female	
2	Male	

1.3 Age Group

1	18– 29 years	
2	30 – 39 years	
3	40 – 49 years	
4	50 – 59 years	
5	60 years and above	

1.4 Highest Educational Qualifications

1	Matric	
2	National Diploma/Degree	
3	Other (Specify) ……	

1.5 Years of experience as CCG

1	0 – 5 years	
2	6 – 9 years	
3	10 – 19 years	
4	20 – 29 years	
5	30 years and above	

1.6 Indicate how you were allocated to the ward

1	By CCG Supervisor	
2	By CCG Facilitator	
3	By Programme Coordinator	
4	Operational Manager	
5	By local community leaders	

PART 2: INTERVIEW QUESTIONS FOR CCGs

Please score on a scale of 1 to 5 by indicating the response that is most relevant to you by using a cross (X) on the space provided.

2.1How satisfied you are you with the allocation of CCGs?

1	Very Dissatisfied	
2	Dissatisfied	
3	Neither satisfied nor dissatisfied	
4	Satisfied	
5	Very Satisfied	

2.2 How do you view the extent of CCG coverage in the wards?

1	No coverage	
2	Low coverage	
3	Some coverage	
4	Moderate coverage	
5	Considerable coverage	

2.3 Please indicate your participation in PHC outreach teams

1	TB tracer teams	
2	School Health team	
3	Family Health teams	
4	Roving Teams	

2.4 Please rate the management of referrals by your clinic

1	Poor	
2	Below average	
3	Average	
4	Above average	

5	Good	

2.5 Please indicate your participation in the following activities of PHC

		Never	Rarely	Occasionally	Very Frequently	Always
1	Profiling					
2	Referrals					
3	Community dialogues					
4	Behavioural change campaigns					

2.6 Please rank the factors that would enable you to be more productive

		Very Unimportant	Unimportant	Neither important or unimportant	Important	Very important
1	Transportation					
2	Resources					
3	Training					
4	Increased stipend					
5	Other (Specify) ---------- ---------- ---------- ----------					

2.7 Factors that adversely affect your performance

		Never	Rarely	Sometimes	Very often	Always
1	Lack of supervision by CCG supervisor					
2	Lack of home based kits					
3	Lack of feedback on your performance					
4	Relationships with CCG team members					
5	Political interference by ward councillor					

2.8 To what extent are you accepted by your

		Not at all	To a little extent	To some extent	To a moderate extent	To a high extent
1	Supervisor					
2	Clinic Committee					
3	Public					
4	Other (Specify) --- ---					

2.9 The level of training and skills you received enables you to adequately do your work

		Inadequate	Somewhat inadequate	Somewhat adequate	Adequate	Very Adequate
1	Literacy					
2	Health Promotion					
3	Immunisations					
4	Addressing social ills					

5	Oral Communication					
6	Written Communication					

2.10 You submit the following to the clinic?

		Never	Rarely	Sometimes	Very often	Always
1	Monthly reports					
2	Daily fieldwork report					

2.11 You have been provided with the following at the clinic

		Never	Rarely	Sometimes	Very often	Always
1	Daily feedback					
2	Performance reviews					
3	Additional skills training					

2.12 If performance reviews are done, indicate how often they are done

		Never	Monthly	Quarterly	Bi-annually	Annually
1	Performance reviews are done					

2.13 Indicate career pathing offered to CCGs

		Never	Rarely	Sometimes	Very often	Always
1	Development for formal qualification					
2	Specialised Training					
3	Mentoring					
4	Coaching					
5	Other (Specify) --- --- ---					

2.14 State additional challenges, if any, in providing the ward based PHC

Thank you very much for your time.

Appendix G: Interview Schedule: OMs

Respondent's Ref. No: | | | | |

Study Site: | | | | |

Date: | | | / | | | / | 1 | 4 |

Ward No: | | |

Municipality: | |

Clinic: | |

Health District: | |

PART 1: DEMOGRAPHIC INFORMATION

Interview Schedule: Operational Managers (OMs)

Key Informant Interview

Participant Category: OPERATIONAL MANAGER AT THE CLINIC

Respondent Information	
Name of District:	Date:
Name of interviewee:	Office location:
Position (full job title):	
Department:	
Additional interviewee(s) – Name(s):	Additional interviewee(s) – Position(s):
Research team information	
Name of interviewer:	
Name of note-taker:	
Informed consent? Yes/No	

1. **Please indicate the type of your clinic**

1	Fixed	
2	Mobile	

2. Deployment and placement of CCGs in the wards in UThukela District.

2.1 How many CCGs support your clinic?

1	0 – 5	
2	6 – 15	
3	6 – 25	
4	More than 25	

2.2 How are the CCGs selected?

1	By CCG Supervisor	
2	By CCG Facilitator	
3	By Programme Coordinator	
4	By local community leaders	
5	Operational Manager	

2.3 The allocation of CCGs

		Strongly Disagree	**Disagree**	**Neither agree nor disagree**	**Agree**	**Strongly Agree**
1	Allocation of CCGs is adequate					

2.4 Indicate the size of the population covered by your clinic

1	Less than 1 000	
2	1 001 – 5 000	
3	5 001 – 10 000	
4	10 001 – 15 000	
5	More than 15 000	

2.5 Indicate the number of the households covered by your clinic

1	Less than 500	
2	501 – 1 000	
3	1 001 – 5 000	
4	5 001 – 10 000	
5	More than 10 000	

2.6 What reporting mechanisms are used in your ward?

		Never	**Rarely**	**Sometimes**	**Very often**	**Always**
1	Daily- Verbal					
2	Weekly meetings					
3	Monthly meetings					

2.7 How are the interventions from the war room managed?

		Never	**Rarely**	**Sometimes**	**Very often**	**Always**
1	Reports					
2	Visits					
3	Assessments					
4	Treatment					

Indicate your role at the clinic

		Never	Rarely	Sometimes	Very often	Always
1	Clinical care					
2	Report writing					
3	Allocation of resources					
3	Supply chain management					
4	Clinic budget management					

2.8 The following resources are adequately provided to service the ward

		Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
1	Financial Resources					
2	Human Resources					
3	Equipment					
4	Medicines					

3. How effective and efficient are the current PHC performance management systems?

3.1 Rank the enablers to deliver PHC in your clinic.

		Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
1	Effective data Management					
2	Management support					

3	Local Leadership support					
4	Community support					

3.2 Good performance management system is determined by the following factors:

		Strongly Disagree	**Disagree**	**Neither agree nor disagree**	**Agree**	**Strongly Agree**
1	User-friendly system					
2	Data availability					
3	Accuracy and completeness of data					
4	Timely reports					
5	Use of reports to implement changes					

4. What can you recommend to overcome the challenges indicated above in order to improve PHC in rural communities?

_____
_____
_____
_____
_____

5. Additional Comments

_____
_____
_____

Thank you very much for your time.

Appendix H: Permission to Conduct Research: DOH

health
Department:
Health
PROVINCE OF KWAZULU-NATAL

Health Research & Knowledge Management sub-component
10 – 103 Natalia Building, 330 Langalibalele Street
Private Bag x9051
Pietermaritzburg
3200
Tel.: 033 – 3953189
Fax.: 033 – 394 3782
Email.: hrkm@kznhealth.gov.za
www.kznhealth.gov.za

Reference : HRKM 94/14
Enquiries : Mr X Xaba
Tel : 033 – 395 2805

Dear Mrs MT Zulu

Subject: Approval of a Research Proposal

1. The research proposal titled **'Evaluation of management of rural ward-based primary health care: a case study of uThukela District in KwaZulu Natal'** was reviewed by the KwaZulu-Natal Department of Health.

   The proposal is hereby **approved** for research to be undertaken at rural clinics in UThukela District. Data collection will involve interviews and self-administered questionnaires with Community Care Givers and Operational Managers in rural clinics.

2. You are requested to take note of the following:
   a. Make the necessary arrangement with the identified facility before commencing with your research project.
   b. Provide an interim progress report and final report (electronic and hard copies) when your research is complete.

3. Your final report must be posted to **HEALTH RESEARCH AND KNOWLEDGE MANAGEMENT, 10-102, PRIVATE BAG X9051, PIETERMARITZBURG, 3200** and e-mail an electronic copy to hrkm@kznhealth.gov.za

For any additional information please contact Mr X. Xaba on 033-395 2805.

Yours Sincerely

[redacted]

Dr E Lutge
Chairperson, Health Research Committee
Date: 23/04/14

Appendix I: Ethical Clearance Certificate

MANAGEMENT SCIENCES: FACULTY RESEARCH ETHICS COMMITTEE (FREC)

25 September 2013
Student No: 21143620
FREC No: 10/13FREC

Dear Mrs Zulu

DOCTORATE DEGREE IN TECHNOLOGY: PUBLIC MANAGEMENT

TITLE: EVALUATION OF MANAGEMENT OF RURAL WARD-BASED PRIMARY HEALTH CARE: A CASE STUDY OF UTHUKELA DISTRICT IN KWAZULU-NATAL

Please be advised that the FREC Committee has reviewed your proposal and the following decision was made: Full Approval, ethics level 1

Approval has been granted for a period of one year, after which you are required to apply for safety monitoring and annual recertification. Please use the form located at the Faculty. This form must be submitted to the FREC at least 3 months before the ethics approval for the study expires.

Any adverse events (serious or minor) which occur in connection with this study and/or which may alter its ethical consideration must be reported to the FREC according to the FREC SOP's.
Please note that ANY amendments to the approved proposal require the approval of the FREC as outlined in the FREC SOP's.

Yours Sincerely

[redacted]

Prof N Durasamy
FREC Chairperson